

BULLETIN
of **CARNEGIE MUSEUM OF NATURAL HISTORY**

**ANNOTATED CATALOGUE OF THE DINOSAURS (REPTILIA,
ARCHOSAURIA) IN THE COLLECTIONS OF
CARNEGIE MUSEUM OF NATURAL HISTORY**

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CONTENTS

| | |
|-----------------------------|----|
| Foreword | 5 |
| Order Saurischia | |
| Suborder Theropoda | 7 |
| Suborder Prosauropoda | 11 |
| Suborder Sauropoda | 11 |
| Order Ornithischia | |
| Suborder Ornithopoda | 30 |
| Suborder Stegosauria | 35 |
| Suborder Ankylosauria | 38 |
| Suborder Ceratopsia | 40 |
| Literature Cited | 43 |
| Appendix 1 | 45 |
| Appendix 2 | 65 |

FOREWORD

This catalogue of the dinosaur specimens of the Carnegie Museum of Natural History employs a format similar to those used by Woodward (1889, 1891, 1895, 1901) and Lydekker (1890) for the fish, amphibians, and reptiles of the British Museum (Natural History). The specimens are arranged systematically from order down to species. Under each species the type specimen is listed first if it occurs in the Carnegie Museum of Natural History collection, followed by the more important articulated specimens, and then by the individual elements, with skull elements first, followed by vertebrae, forelimb bones, and hind limb bones. With one exception accession and field numbers are omitted from the text but are given in the appendix, where all the specimens are listed serially by their catalogue numbers. Only field numbers for specimens from Dinosaur National Monument are given and are indicated in the text by the abbreviation DNM, as, for example, DNM 130. These field numbers were assigned in serial order by Earl Douglass, who directed the excavation of the quarry, to what he considered single individuals. Individual bones of a specimen or blocks containing bones of a single specimen were assigned subnumbers, for example DNM 130/2 or DNM 130/B. Inevitably some series of bones thought to belong to a single individual proved upon preparation to belong to several animals, or even several genera. Less often preparation has shown that specimens assigned two field numbers, for example DNM 240 and part of DNM 270, belong to a single individual. Despite these drawbacks, Douglass' field numbers have proved useful. Citations within the text that refer to a particular specimen are expanded to include the pages and figures pertaining directly to that specimen.

Specimens originally assigned Carnegie Museum of Natural History catalogue numbers but subsequently transferred to other institutions, are also listed, because many were described and figured as specimens of the former and because of the importance of knowing their present location. Catalogued casts are also included, because some of these may be useful for study; for example, the *Struthiosaurus* casts are perhaps the only representative materials of this genus in America. Unprepared specimens and those transferred to other institutions before preparation and cataloguing are not included. In a few cases the same catalogue number had been

used for two specimens, usually for a dinosaur and for a non-dinosaur. In these instances the dinosaur specimens have been recatalogued, but the original numbers are also given.

It is beyond the scope of this catalogue to provide a revision of species or a novel classification. In general, the classification used here is a slightly simplified version of that found in Romer's (1966) third edition of *Vertebrate Paleontology*; it is updated by recent studies and by employing a modified classification of the Sauropoda. Troublesome is the question of validity of many of the congeneric species from the Morrison Formation which have been based on very incomplete skeletons. There are certainly two or more valid species of *Stegosaurus*, probably at least two of *Camarasaurus*, and, although the evidence is not yet unequivocal, probably several of *Diplodocus*. Determination of the validity of other congeneric species from the Morrison, however, must await discovery and preparation of much more material. Where species are clearly identical, as in the case of *Haplocanthosaurus priscus* and *H. utterbacki*, they are synonymized. Where it is not known whether minor differences between congeneric species warrant specific separation, as with *Apatosaurus excelsus* and *A. louisae*, the conservative position of retaining both species is taken. Isolated sauropod elements can seldom be identified as to species. As not more than one species per genus has been recognized in the material from Dinosaur National Monument the isolated specimens belonging to each have been listed after those which are identifiable, but in Appendix 1 they appear as, for example, *Camarasaurus* sp. In the case of *Camptosaurus*, where the type specimens of four of the six described species have come from a single quarry—a number that is almost certainly too high—Gilmore's (1925*b*) assignment of the Carnegie Museum of Natural History specimens of this genus to *C. medius* is accepted, pending a revision of the species by Dodson. Where possible individual bones are given a generic assignment. This has undoubtedly led to some errors, particularly with poorly preserved specimens, but the advantages of attempting an identification appear to outweigh the disadvantages. In some cases it was not possible to provide more than a family designation for isolated elements, particularly vertebrae, limb, or foot bones of hadrosaurids.

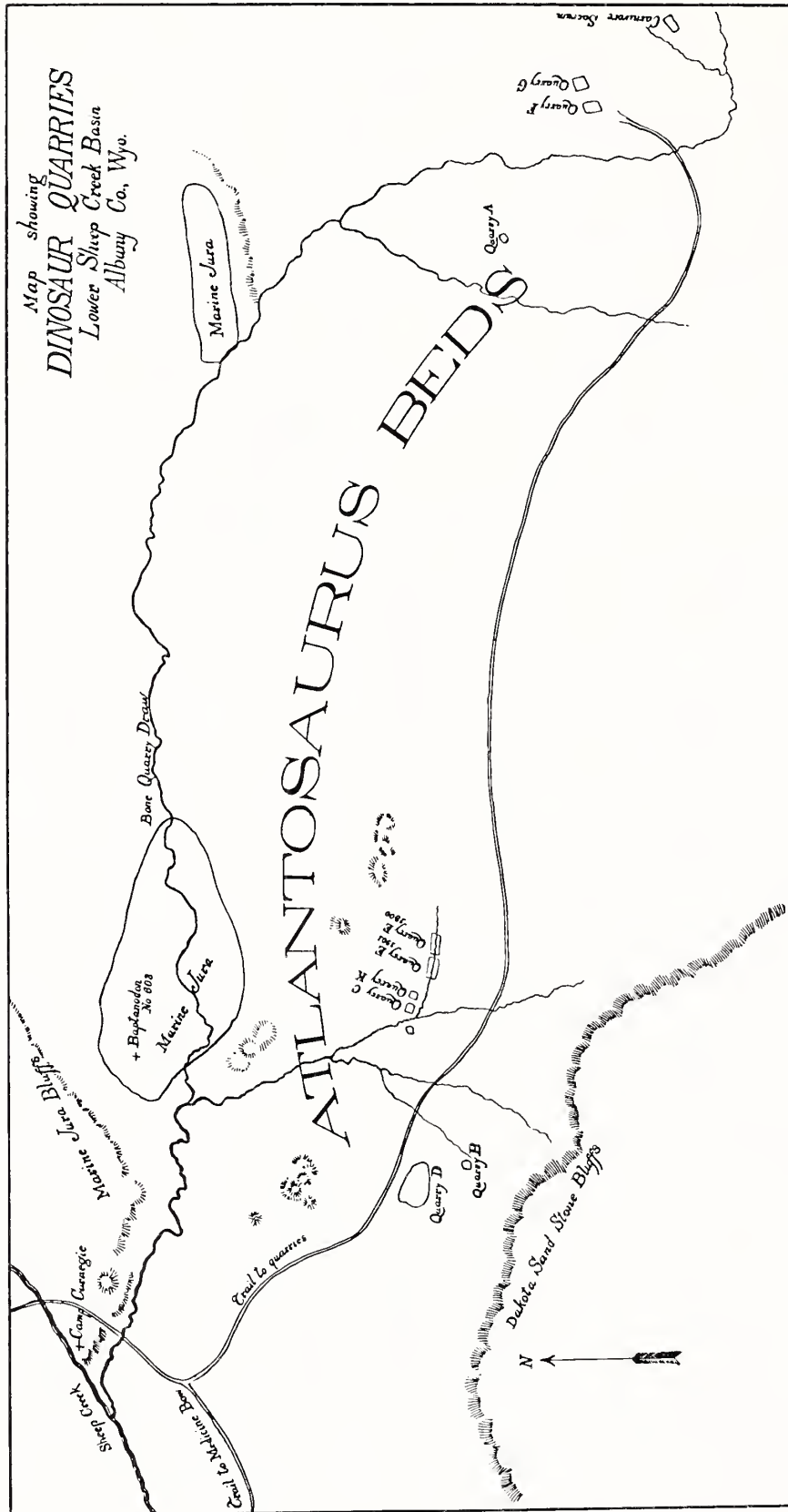


Fig. 1.—Carnegie Museum dinosaur quarries, Sheep Creek, Wyoming.

Thanks are due to C. Black, M. Dawson, and D. Berman for making this work possible and overall encouragement. J. Ostrom, M. Brett-Surman, J. Horner, and P. Dodson were consulted concerning several hadrosaur specimens and D. Weishampel reviewed critically the entire section on the ornithopods. L. Plowman retouched photos in Figs. 3, 10, 16, 17, and 20. Their help is gratefully acknowledged. Most of all my thanks are offered to Lee Schiffer who painstakingly cross-checked the main text and appendix for inconsistencies and provided invaluable aid in delving into the records; lastly to Elizabeth Hill, who typed the manuscript, aided with the illustrations, and in countless other matters.

Abbreviations used to refer to collections or localities: AMNH, American Museum of Natural History; BM, British Museum (Natural History); CM, Carnegie Museum of Natural History; CMNH, Cleveland Museum of Natural History; DMNH, Denver Museum of Natural History; DNM, Dinosaur National Monument; DU, Duquesne University; GSC, Geological Survey of Canada; ROM, Royal Ontario Museum; UM, University of Michigan; UNHSM, Utah Natural History State Museum; USNM, National Museum of Natural History; UU, University of Utah; YPM, Yale Peabody Museum.

ORDER SAURISCHIA SUBORDER THEROPODA

FAMILY TERATOSAURIDAE

Teratosaurus and its allies are known from only very fragmentary material, and their position has been the subject of a great deal of controversy. From its traditional assignment as a primitive theropod some have argued that it is really a carnivorous prosauropod, while others have questioned whether it is a saurischian at all. For purposes of this catalogue the conservative position is accepted.

Genus *Teratosaurus* Meyer, 1861

Teratosaurus suevicus Meyer, 1861

358 A tooth from the Keuper of Aixheim, Germany; obtained by exchange in 1901.

Collected by E. Fraas

FAMILY MEGALOSAURIDAE

Genus *Allosaurus* Marsh, 1877

Syn.: (?) *Antrodemus* Leidy, 1870.

Although it is not unlikely that the half caudal centrum upon which Leidy founded *Antrodemus* belongs to this animal, the realization in recent years that a number of large theropods were present in the Morrison Formation makes positive verification of the synonymy difficult. Most writers today have returned to the use of the name *Allosaurus*—the position adopted here.

Allosaurus fragilis Marsh, 1877

11844 Cranium, mandible, and the greater portion of the skeleton lacking the forelimbs and a few other bones; from the Morrison Formation of Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah (DNM 202). The partial skull, cervicals, scapula-coracoid, and some ribs

were originally catalogued CM 11868 but they are part of this skeleton. The specimen was mounted and placed on exhibition in 1938. The right fibula was supplied from DNM 171 found near the skeleton and likely belonging to it. The incomplete skull was replaced in the mount by a cast of one from the same quarry, UU 6000. The forelimbs were cast from USNM 4734. Pictured by Kay—Carnegie Mag. (1940a), 13:303–304; mentioned by Stovall and Langston—Amer. Midland Nat. (1950), 43:713.

Collected by Douglass et al., 1913–1915

The following specimens all came from the Morrison Formation at the Carnegie Museum Quarry at Dinosaur National Monument near Jensen, Utah, and were collected by Douglass et al., 1909–1923.

21703 Cranium, presacrals, caudals, ilium, ischium (DNM 22).

11843 Cranium (only partially prepared), several centra, ribs, 1 coracoid, and other parts perhaps belonging to a young individual of this genus (DNM 366).

3387 Teeth and fragments (DNM 2).

3382 A tooth (DNM 14).

3383 Small vertebrae etc., perhaps belonging to this form (DNM 187).

33965 Two anterior caudal centra, four spines, three arches (DNM 120/C).

38341 Caudal and claw (marked DNM 130, probably really 102).

21705 Caudal centrum (DNM 193/A).

33957 Two caudals (with DNM 232).

21757 Three caudals.

33901 Several vertebrae.

- 33903 Gastralia perhaps belonging to this form (associated with DNM 210).
- 21713 Left ischium and a metatarsal and other material not yet prepared (DNM 302, part).
- 21726 Left femur (DNM 39/60L).
- 21769 Distal end of right femur (DNM 120/N).
- 37004 Distal end of metatarsal (DNM 270/26).
- 38349 Several incomplete metatarsals (?DNM 197, part).
- 10002 Proximal end right tibia and fibula from the Morrison Formation, east of Nielsen Gulch, northeast of Carnegie Museum Quarry at Dinosaur National Monument and not far from the latter (DNM 165). The horizon is the same as that of the main quarry. The fibula was incorporated into the mounted skeleton CM 11844.
Collected by Douglass et al., 1913
- 82 Anterior caudal centrum from the Morrison Formation of Carbon County, Wyoming. It was brought back to Pittsburgh in 1899 by W. J. Holland from his first trip to the West to obtain dinosaurs for the museum. It is of historical importance as the first dinosaur specimen (aside from a cast) to be entered into the museum catalogue. A small section of a sauropod rib found with the centrum bears the same catalogue number.
Collected by Holland, 1899
- 21736 A large right scapula–coracoid probably belonging to this species. The data concerning it has been lost, but it may have come from the Morrison Formation at Dinosaur National Monument, despite its somewhat unusual coloration.
- 1254 Both ischia to which has been added a right premaxilla, two teeth, two sacral vertebrae, left humerus, four metatarsals, and several phalanges. These are part of a skeleton of a small individual, some bones of which were formerly catalogued as part of the "catchall" no. 1255 (p. 15) from Quarry N, Freezeout Hills, Carbon County, Wyoming. Many vertebrae and other parts of the skeleton were poorly preserved and were discarded.
Collected by Gilmore, 1902
- 2045 A femur from the Morrison Formation of Wilson Creek, Colorado.
Collected by Utterback, 1901
- 36037 Caudal. Quarry B, Red Fork of the Powder River, Johnson County, Wyoming.
Collected by Utterback, 1903
- Genus *Torvosaurus* Galton and Jensen, 1979
Torvosaurus tanneri Galton and Jensen, 1979
- 14955 Cast of a very large claw (original BYU 2020) from the Morrison Formation at Lily Park, Moffat County, Colorado. Figured by Galton and Jensen—Brigham Young Univ. Geol. Studies (1979), 26(1): Fig. 1M.
Presented by James Jensen, 1963
- Genus *Ceratosaurus* Marsh, 1884
Ceratosaurus nasicornis Marsh, 1884
- 21706 Incomplete dentary from the Morrison Formation at the Marsh-Felch Quarry, Garden Park, north of Cañon City, Fremont County, Colorado.
Collected by Utterback, 1901
- Small Theropod Genus**
Under study by J. Madsen
- 21704 Cranium, cervicals 1–6, five articulated dorsals. The remainder of this specimen was transferred to the Royal Ontario Museum. It came from the Morrison Formation on the west side of Nielsen Gulch northeast of the Carnegie Museum Quarry at Dinosaur National Monument, Uintah County, Utah.
Collected by Douglass et al.
- FAMILY TYRANNOSAURIDAE
Genus *Tyrannosaurus* Osborn, 1905
Tyrannosaurus rex Osborn, 1905
- 9380 Skeleton consisting of partial skull and mandible, one cervical, seven dorsals, five sacrals, three abdominal ribs, right scapula, left humerus, ilia, pubes, ischia, left femur and part of right, tibia, right metatarsals II and III, left metatarsal IV. *Type specimen*. It was collected in the Lance Formation at Hell Creek, Garfield County, Montana, and was described and figured by Osborn—Bull. Amer. Mus. Nat. Hist. (1905), 21:262–263, Fig. 1; Bull. Amer. Mus. Nat. Hist. (1906), 22:281–296, Figs. 1–12; Bull. Amer. Mus. Nat. Hist. (1917), 35:762–771, Figs. 19–21; Mem. Amer. Mus. Nat. Hist., n.s. (1912), 1:Figs. 20–24. This skeleton (formerly AMNH 973), obtained from the American Museum of Natural History, is mounted and was placed on exhibition in 1942.
Collected by B. Brown, 1902–1903
- 9379 Brain cast of AMNH 5029 collected in the

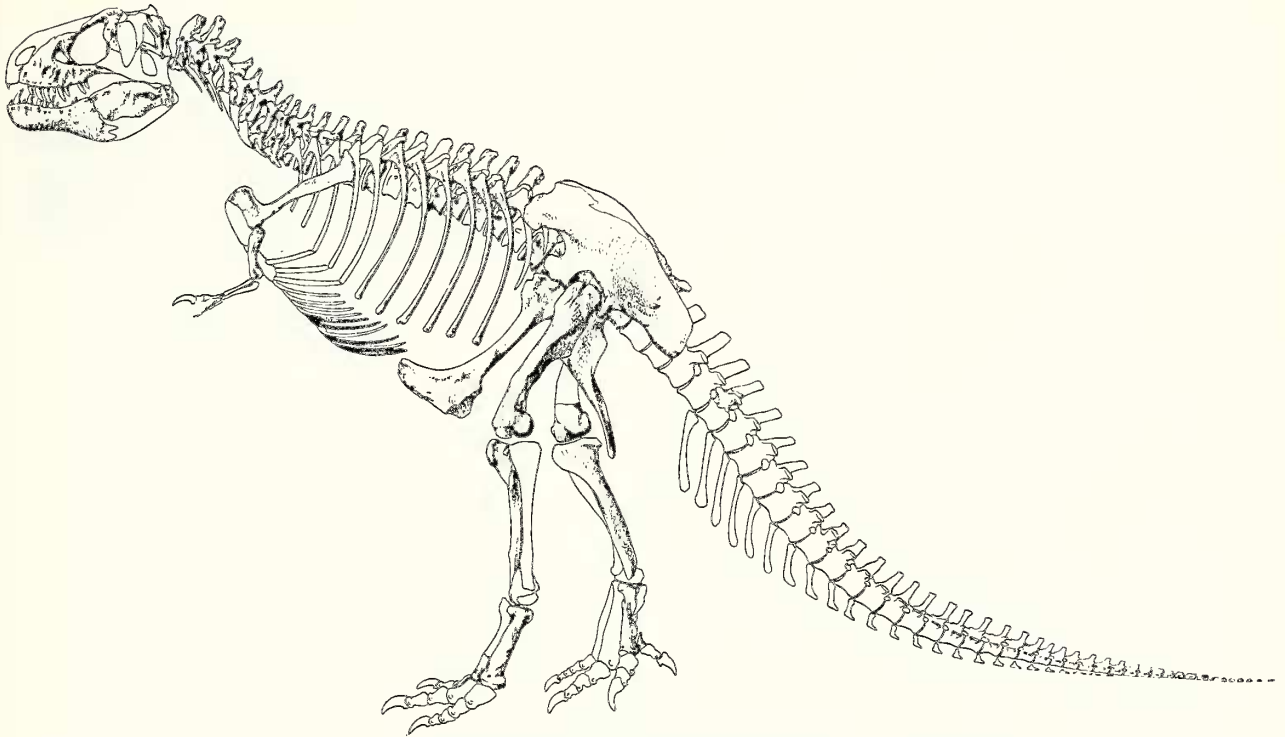


Fig. 2.—Skeleton of *Tyrannosaurus rex*, CM 9380 (formerly AMNH 973); missing parts restored in outline except neck and first dorsal vertebra which are drawn from AMNH 5866, now mounted and on exhibition in the British Museum (Nat. Hist.), after Osborn.

Lance Formation (Hell Creek beds) on the west side of Big Dry Creek, 44 mi south of Glasgow, Garfield County, Montana. This cast was also obtained from the American Museum of Natural History and was figured by Osborn—*Mem. Amer. Mus. Nat. Hist.*, n.s. (1912), 1:13–24, Pls. 3–4 and Figs. 16–17.

Original collected by Brown and Ka-
isen, 1908

1400 Part of the skull including the maxilla, cranium and both lower jaws, two dorsals, seven caudals, ribs, chevrons, part of pubis, ilium, femur, and other bones. It was obtained from the Lance Formation on Snyder Creek, Niobrara County, Wyoming. The upper jaw is on exhibition.

Collected by Peterson, 1902

244 A phalanx from the Lance Formation on Lance Creek, Niobrara County, Wyoming.

Collected by Hatcher, 1900

Tyrannosauridae, indeterminate

30749 Thirteen teeth of varying size belonging to more than one individual from the Lance Formation, on Sheep Mountain, Carter

County, Montana. The smaller teeth may belong to a different genus.

Collected by Kay, 1938

12102 Left femur. Same data as above.

Collected by Kay, 1937

9401 Right lachrymal bone from the Judith River beds on Willow Creek, three miles east of the Nolan Archer Ranch, Fergus County, Montana. It was originally catalogued CM 963 but altered because this number had also been assigned to a specimen of *Deinosuchus*.

Collected by Hatcher, 1903

FAMILY COMPSOGNATHIDAE

Genus *Compsognathus* Wagner, 1861

Compsognathus longipes Wagner, 1861

53 Cast of an essentially complete skull and skeleton from the Kimeridge Clay (Solnhofen Shale) of Solnhofen, Bavaria. The original is the type specimen and is in the Bavarian Museum in Munich. It was described and figured by Wagner—*Abh. Bayer Akad. Wiss.* (1861), 9:94–102, Pl. 3.

Original collected by Oberndorfer

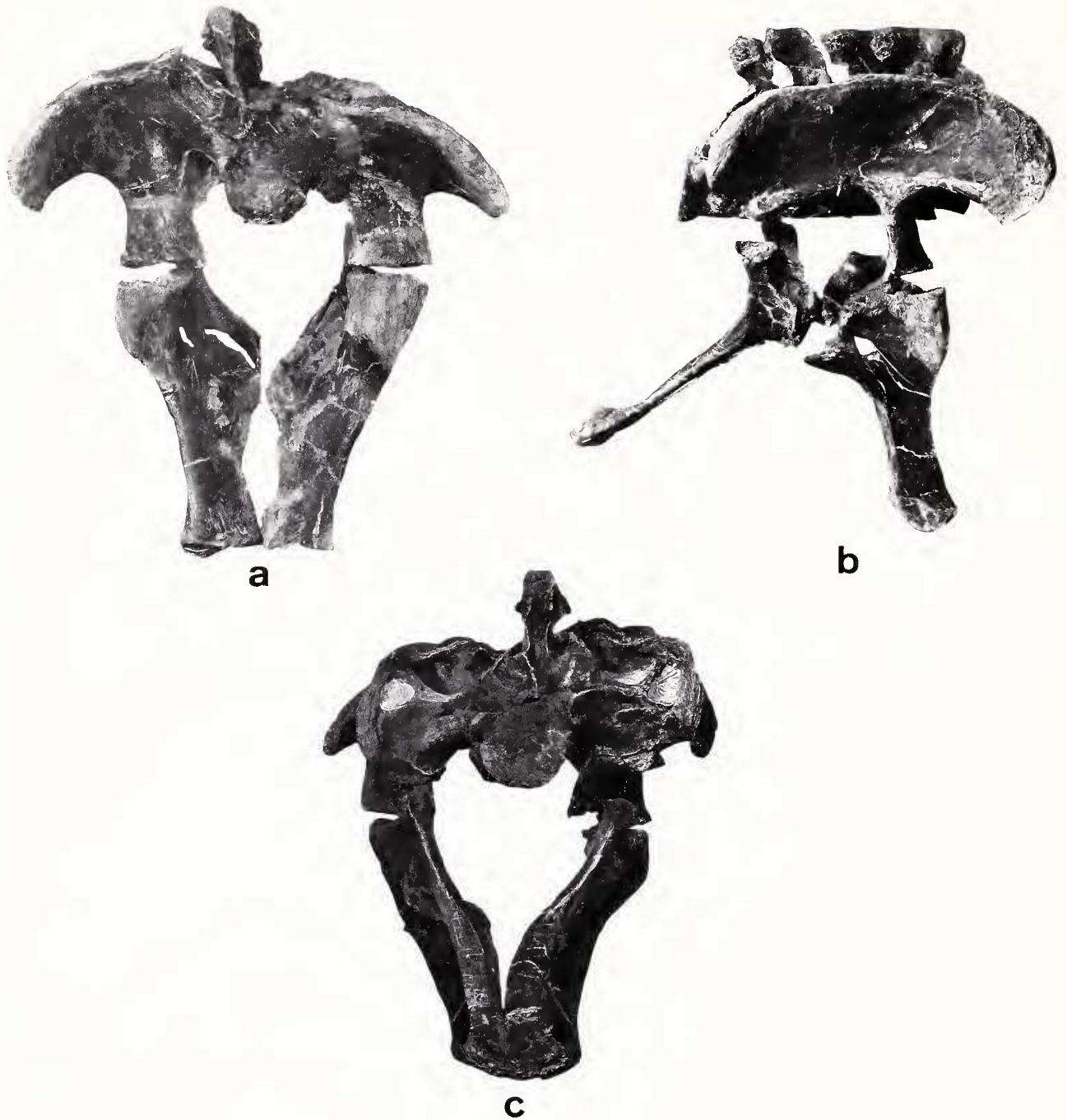


Fig. 3.—Pelvis of *Haplocanthosaurus priscus*, CM 572; a) anterior view; b) lateral view; c) posterior view.

FAMILY COELURIDAE

Genus *Stenonychosaurus* Sternberg, 1932

Stenonychosaurus inequalis Sternberg, 1932

30748 Left femur, ?right femur, tibia, half a humerus, ulna perhaps not belonging to a single

individual and doubtfully referred to this form. It came from the Lance Formation on Sheep Mountain, Carter County, Montana.

Collected by Kay, 1938

FAMILY ORNITHOMIMIDAE

Genus *Ornithomimus* Marsh, 1890*Ornithomimus* sp.

- 593 Fragmentary metapodial from the "Belly River" Formation near Havre, Montana.
Collected by Douglass, 1902
- 38322 Four claws of the manus from the Lance Formation of Sheep Mountain, Carter County, Montana.

THEROPODA, INSERTAE SEDIS

- 38326 Right femur from the Lance Formation at Sheep Mountain, Carter County, Montana.
Collected by Kay, 1938
- 38323 Two claws. Same data as above.
Collected by Kay, 1938

SUBORDER PROSAUROPODA

FAMILY PLATEOSAURIDAE

Genus *Plateosaurus* H. von Meyer, 1837*Plateosaurus* sp.

- 11908 Cast of a complete right pes from the Upper Trias of Germany.
Purchased in 1933

SUBORDER SAUROPODA

FAMILY CETIOSAURIDAE

Genus *Haplocanthosaurus* Hatcher, 1903Syn.: *Haplocanthus* Hatcher (preoccupied), 1903.*Haplocanthosaurus priscus* Hatcher, 1903Syn.: *Haplocanthus priscus* Hatcher, 1903.*Haplocanthosaurus utterbacki* Hatcher, 1903.

- 572 Partial skeleton consisting of the last two cervicals, 10 dorsals, five sacrals, caudals 1–19, many ribs, two chevrons, ilia, pubes, ischia, left femur. *Type specimen*. This skeleton is from the Morrison Formation of the Marsh-Felch Quarry No. 1 at Garden Park, north of Cañon City, Fremont County, Colorado. It was described briefly by Hatcher as *Haplocanthus priscus*—Proc. Biol. Soc. Washington (1903*b*), 16:1–2—but altered to *Haplocanthosaurus*—Proc. Biol. Soc. Washington (1903*a*), 16:100. He fully described and figured all parts of it in Mem. Carnegie Mus. (1903*d*), 2:1–27, Figs. 3–4, 7–14, Pls. 1, 2, 4, 5.

Collected by Utterback, 1901

- 879 Partial skeleton consisting of 10 cervicals, 13 dorsals, five sacrals, caudals 1–7, five or six ribs, left scapula, right coracoid. *Type specimen* of *Haplocanthosaurus utterbacki*.

Found a few feet from the above skeleton. It was described and completely figured by Hatcher—Mem. Carnegie Mus. (1903*d*), 2:27–43, Figs. 15–20, Pl. 2.

Collected by Utterback, 1901

- 33995 Left scapula–coracoid. These well preserved bones are marked 94, the catalogue number of the paratype of *Diplodocus carnegii* from Sheep Creek Quarry D. This is an obvious error because (1) both scapulae of 94 are accounted for and this one is much smaller, and field records indicate that there was no "extra" scapula found, and (2) this bone is clearly not that of *Diplodocus*. It resembles that of *Haplocanthosaurus* CM 879 closely. Not unlikely is it the "lost" scapula–coracoid which field records indicate was found with CM 572.
- 2043 Right tibia, fibula, and astragalus. Same data as the above. This specimen probably belongs to this form.
Collected by Utterback, 1901
- 2046 Left tibia and fibula. Same data as the above. It probably belongs to this form.
Collected by Utterback, 1901
- 36034 A median caudal exhibiting the large chevron facets of this genus from Quarry B, Red Fork



Fig. 4.—Skull and mandible of *Camarasaurus lentus*, CM 11338, right lateral view.

of the Powder River, Johnson County, Wyoming (originally part of CM 1256). May belong to *Haplocanthosaurus*.

Collected by Utterback, 1903

FAMILY CAMARASAURIDAE

Genus *Camarasaurus* Cope, 1877

Syn.: *Morosaurus* Marsh, 1878.

Uintasaurus Holland, 1919.

Camarasaurus lentus (Marsh) 1889

Syn.: *Morosaurus lentus* Marsh, 1889.

Uintasaurus douglassi Holland, 1919.

Camarasaurus annae Ellinger, 1950.

This species has never been satisfactorily separated from the gigantic *C. supremus* Cope, type species of the genus.

11338 Skull and skeleton, articulated and complete except for caudal centra 9, 10, 11, left ilium, left ischium, and some of the ribs on the left side; it is the most perfect sauropod skeleton ever found. This juvenile animal is from the Morrison Formation of the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah (DNM 333). It was described by Gilmore—Mem. Carnegie Mus. (1925a), 10:347–384, and figured as follows: skull—Figs. 1–4, Pl. 16, skeleton—Pls. 14, 15, 17, sternal plate—Fig. 5. Pictured by Kay—Carnegie Mag. (1951), 25:91. It is mounted and was placed on exhibition in 1924.

Collected by Douglass et al., 1919–1920

11373 Skull and skeleton, articulated and complete except for the tail (DNM 300 and 301). Same data as the above. Although much larger than the above specimen, this one is far from a full sized animal. It was transferred to the National Museum of Natural History in Washington in 1935 (USNM 13786) where it is mounted and on exhibition. It is pictured in Glut—The Dinosaur Dictionary (1972), p. 41.

Collected by Douglass et al., 1918–1919

30743 Cast of the skull and mandible of the above specimen (DNM 300).

Made in the museum

3379 Articulated tail of 47 caudals complete almost to the tip. Same data as the above (DNM 130, part). It was displayed at the Dallas Exposition in 1936 and transferred to the National Museum of Natural History (USNM 15492) where it was used to complete the mounted *Camarasaurus* skeleton (USNM 13786) (see above). Douglass considered it likely that this specimen was the detached tail of 210 (see CM 8942 and CM 33916 below).

Collected by Douglass et al., 1912

11393 Disarticulated skeleton of an adult animal consisting of the partial skull and mandible, five+ cervicals, 10+ dorsals, sacrum, 25 caudals, many ribs, several chevrons, scapulae, coracoids, right humerus, right radius, right ulna, part of manus, ilia, pubes, ischia, femora, left fibula, calcaneum, two metatarsals, three phalanges, two claws (DNM 240 and 270, part). The skull was later recatalogued CM 12020 (see below). Same data as the above. Two articulated cervicals have been transferred to the University of Michigan (V 16995) where they are on display.

Collected by Douglass et al., 1915–1916

12020 Partial skull and mandible found among the bones of the above skeleton (DNM 240/L). It was initially given the catalogue number of the remainder of the skeleton, 11393, but was later recatalogued 12020, and a cast of it was used until recently to complete the headless mounted skeleton of *Apatosaurus louisae*, CM 3018. It is referred to by Gil-

more—Mem. Carnegie Mus. (1936a), 11:188–190, Fig. 4.

- 21751 Right premaxilla, both rami of the mandible, many teeth of a large individual found in the same quarry as the above and quite near it, but in a distinctly higher stratum than the usual bone layer in which the above specimens were found (DNM 201/A and B).

Collected by Douglass et al., 1914

- 11069 Five articulated posterior cervicals (or perhaps four cervicals and the first dorsal) of a medium-sized animal (DNM 150B/M). Same data as the above. Originally thought to be two large cervicals of a nearby *Barosaurus* skeleton, these proved to be five smaller vertebrae, which were assigned by Holland as the type specimen of a new genus and species, *Uintasaurus douglassi*; Holland—Carnegie Mus. Ann. Rept. (1919), p. 38; Ann. Carnegie Mus. (1924a), 15:119–138, Figs. 1–7, Pls. 10–14. This species was shown by White to be synonymous with *Camarasaurus lentus*—J. Paleo. (1958), 32:482.

Collected by Douglass et al., 1914–1915

- 8942 A complete anterior dorsal vertebra from the same locality as all of the above (DNM 130/2) described and figured by Ellinger—Amer. Nat. (1950), 84:225–228, Figs. 1–2. It was originally cited in a Master's Thesis of L. L. White at Duquesne University, 1950 (unpublished). Ellinger made it the type specimen of a new species, *Camarasaurus annae*. The specimen had been transferred to Duquesne University (DU 1), but was later returned to the Carnegie Museum of Natural History. The characters cited by Ellinger in founding the species are here considered to be due to individual variation, and the animal is assigned to *C. lentus*. An associated dorsal of the same size and also complete (DNM 130/1) no doubt belongs to the same individual as do several other presacrals. Furthermore, these dorsals were found only 4 ft from the above cervicals, CM 11069, and in all probability belong to the same individual. Finally, these *Camarasaurus* vertebrae lay across an articulated series of *Apatosaurus* presacral vertebrae, CM 33916. Many different limb and girdle elements belonging to several genera were found nearby and assigned the same

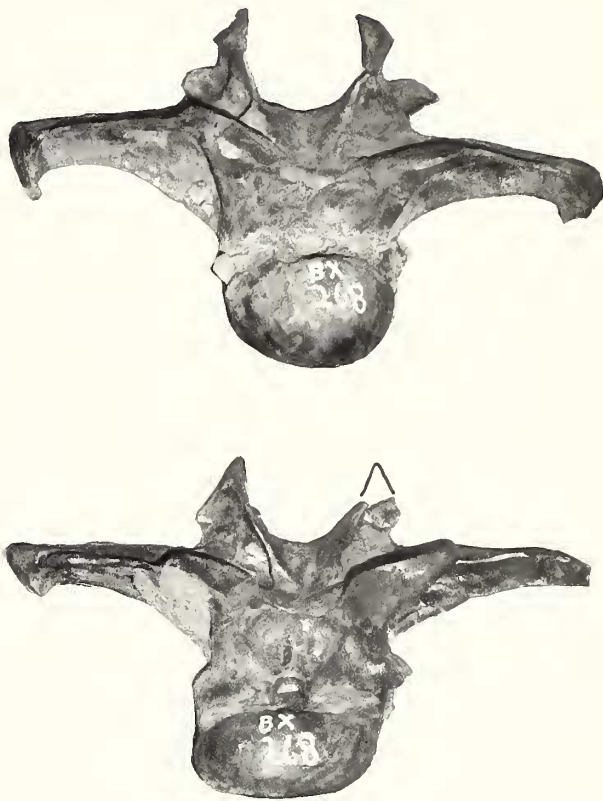


Fig. 5.—Two anterior dorsal vertebrae of *Camarasaurus* "annae," CM 8942, anterior view.

field number as the latter, DNM 210, but some may belong with this animal (see under CM 33916 below).

Collected by Douglass et al., 1912

The following specimens were all collected by Douglass et al. in the Morrison Formation at the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah, between 1909 and 1922. They probably belong to this species.

- 11969 Cranium and part of the neck (the latter unprepared) of a large individual (DNM 325).
 21732 A maxilla, dentary, quadratojugal and fragments of a poorly preserved skull (DNM 201/C, D, E, and F) associated with, but distinct from CM 21751.
 3381 A large tooth (DNM 3).
 21702 Right maxilla without teeth (DNM 39/60a), juvenile.
 36701 Cervical (from DNM 39/65 Ca).
 30760 Two and one-half dorsals (found with DNM 40).
 33955 Dorsal (DNM 101).

- 21733 Several posterior dorsals articulated with the sacrum and right ilium. A few centra were transferred to the Everart Museum in Scranton, Pennsylvania, where they are on display (DNM 344).
- 21712 Thirteen articulated caudal vertebrae, the arches as yet unprepared (DNM 45).
- 37001 Two neural arches of anterior caudals or sacra (DNM 302, part).
- 21716 Five caudal centra (marked, apparently incorrectly, DNM 60).
- 30769 Two caudals (DNM 70/4).
- 30771 Caudal arch and spine (with DNM 210), juvenile.
- 33986 A caudal (DNM 39, part).
- 33909 A caudal (DNM 232, part).
- 38342 Caudal (DNM 102, part).
- 33925 Right scapula and coracoid (DNM 210/2 and 6).
- 33929 Right scapula, three cervicals (DNM 270/1).
- 38320 Large left humerus, more robust than usual, but probably too slender for *Apatosaurus* (DNM 39/13).
- 21781 Left humerus (DNM 45/21), perhaps same individual as tail CM 21712.
- 33972 Right forelimb and foot (DNM 120, part).
- 33963 Right humerus (DNM 210/0), very young animal.
- 33971 Left humerus (DNM 120/M, part).
- 33988 Head of right humerus (DNM 210/16). The remainder of the bone is on exhibit at the California Academy of Science, San Francisco, California.
- 33979 Right humerus (two ends) (DNM 102, part).
- 38334 Distal end of right humerus (DNM ?39).
- 33948 Left ulna of a smaller individual (DNM 232/23).
- 33954 Both ends of a left ulna (in DNM 39/65H).
- 33949 Right radius (DNM 232/17).
- 37003 Metacarpal (DNM 232, part)—might belong to skeleton CM 11393 but found 20 ft away from it.
- 21735 Left ilium (DNM 147), juvenile, perhaps belong to this form.
- 33981 Right ilium (DNM 130/10).
- 21750 Left femur, lacking the head. A part of the head received the separate catalogue number 11971 (DNM 155/Fe2).
- 21759 Left femur (small) (DNM 167) (originally catalogued as part of CM 9000).
- 21772 Left femur of a very small individual (DNM 350/3²), found associated with *Stegosaurus* skeleton CM 11341. It perhaps belongs to this species. An equally small dorsal centrum and right coracoid found associated may belong to the same animal.
- 33973 Right femur (DNM 210/20) perhaps belonging to CM 11069 above. The proximal end of the bone is at the California Academy of Science, San Francisco, California.
- 21777 Left tibia, astragalus, metatarsal I, claw (DNM 270, part).
- 21783 Right tibia (DNM 150/45), found with a skeleton of *Diplodocus* but not belonging to it. The right fibula of the same limb is in the Denver Museum of Natural History where it was transferred with skeleton DNM 150.
- 33956 Lower half of a small right tibia (with DNM 130/D).
- 33927 Right tibia (DNM 232/2).
- 33958 Two claws (DNM 232, part).

Camarasaurus grandis (Marsh, 1877)

Syn.: *Apatosaurus grandis* Marsh, 1877.

Morosaurus grandis Marsh, 1878.

Morosaurus impar Marsh, 1878.

Pleurocoelus montanus Marsh, 1896.

- 21760 Casts of bones belonging to the type specimen of *M. grandis* (YPM 1901), paratype (YPM 1905, 1903), and type specimen of *M. impar* (YPM 1900). These were found in the Morrison Formation intermingled at Quarry 1, Como Bluff, Wyoming. As the separation of the individuals is speculative, it was considered better to catalogue them under one number. The individuals were of about the same size. Sacrum (YPM 1900), left scapula, coracoid, humerus, radius, ulna, femur (YPM 1901), right ilium and ischium, left tibia, fibula, and pes (YPM 1905), left pubis (YPM 1903). Described by Marsh originally as *Apatosaurus grandis*—*Amer. J. Sci.* (1877), 14:515, and referred to *Morosaurus*, *Amer. J. Sci.* (1878), 16:412–413, Pls. 6–7. These figures were reproduced by Marsh in later articles and monographs. The individual elements are figured in all views in Ostrom and McIntosh—*Marsh's Dinosaurs* (1966), Pls. 43, 49, 51, 53, 65, 68, 72, 73, 75, 76, 78, 79, 81–89.

Originals collected by Reed, Carlin, and Williston, 1877–1878

Camarasaurus sp.

- 113 Left maxilla and postorbital, right dentary, other skull fragments from the Morrison Formation at Quarry C, Sheep Creek, Albany County, Wyoming.

Collected by Peterson and Gilmore, 1902

- 584 Two cervicals, eight dorsals, 31 caudals, many ribs, chevrons, right ilium, pubis, ischium, and scapula-coracoid. These beautifully preserved and uncrushed bones came from the Morrison Formation at Quarry D, Sheep Creek, Albany County, Wyoming. It was thought at one time that a nearly complete neck and also bones of both the fore and hind limbs which had been catalogued as CM 555 and 556 were probably part of this skeleton and plans were made to mount it. However, further preparation of the neck showed it to belong to *Apatosaurus* as do the limb bones 555 and 556 (see below), Holland—Carnegie Mus. Ann. Rept. (1909), p. 31.

Collected by Peterson and Gilmore, 1900

The following material was all collected at Quarry N, Freezeout Hills, Carbon County, Wyoming, by C. W. Gilmore, 1902–1903.

- 1255 A general catalogue number applied to the bulk of the material from the Morrison Formation of Quarry N, Freezeout Hills, Carbon County, Wyoming. At the time of cataloguing a small *Allosaurus* skeleton was separated as CM 1254, and a *Camarasaurus* tail (below) as CM 1252. The remainder of the collection was given this number. It included the bones of two intermingled medium large *Camarasaurus* skeletons, a small number of *Apatosaurus* bones, and a dozen or so *Stegosaurus* bones. Recently the latter have been recatalogued as CM 21737 (below) and an associated *Camarasaurus* fibula and pes as CM 21730 (below). The remainder of the material (largely *Camarasaurus*) consists of a large spatulate tooth, 22 caudals, two ribs and fragments of two others, 11 chevrons, four (or five) scapulae, three coracoids, two humeri, two radii, one ulna, two carpal bones, five metacarpals, one claw, one ilium, four pubes, two ischia, two femora, four tibiae, two fibulae, three astragali, one calca-

neum, five metatarsals, 19 metapodials, 17 phalanges. Now these have also been recatalogued with the aid of the original quarry diagram. The number 1255 is now applied to a few elements, principally ribs, which cannot be referred to one of the two *Camarasaurus* skeletons with any degree of certainty. There are also a large spatulate tooth, several chevrons, a fragmentary pubis, and some fragments.

- 1252 Forty largely articulated caudals reaching to the tip of the tail with a number of accompanying chevrons.
- 21730 Left fibula, astragalus, calcaneum, and complete pes found semi-articulated. This specimen was found near the anterior end of tail 1252 and not improbably belongs to the same individual.
- 36663 Both scapulae and coracoids, right humerus, right ilium, pubes, ischia, left femur-tibia-fibula-astragalus-calcaneum.
- 36664 Both scapulae and coracoids, left humerus and radius, left femur, both tibiae, right fibula. This skeleton is a little larger than the last.
- 36671 Four caudals.
- 36689 Six caudals.
- 36693 Four caudals.
- 36694 Caudal.
- 36695 Caudal.
- 36678 Carpal bone perhaps belonging to this genus.
- 36686 Three metacarpals.
- 36685 Two phalanges of the left manus.
- 36666 Incomplete pubis found near tail CM 1252.
- 36668 Left tibia-metatarsal I-metatarsal IV of a half grown individual.
- 36669 Fibula lacking both ends.
- 36675 Astragalus, three metatarsals, phalanx of pes.
- 36677 Phalanx.
- 36679 Two phalanges.
- 36684 Seven phalanges perhaps belonging to several individuals.
- 36680 Ungual phalanx of the pes.
- 1256 This number was formerly assigned to the bulk of a large amount of material collected from the Morrison Formation at Quarry B, Red Fork of the Powder River, Johnson County, Wyoming. Initially an articulated *Diplodocus* tail, CM 307, was separated out.

At the time that the latter was prepared in connection with the mounting of the *Diplodocus* skeleton, several other boxes of material were also worked up and catalogued CM 312 (see below). Three bones of the left forelimb were also prepared, but it is unclear whether they were assigned to CM 312 or not. They have recently been recatalogued CM 21775. Several years later the remainder of the material was prepared and found to represent a number of individuals. A series of chevrons received the number CM 1253 and all the remainder were catalogued CM 1256. Recently the bones of the several individuals have been separated and recatalogued, a task complicated by the fact that the quarry diagram has been misplaced. A small number of bones, largely ribs and fragmentary specimens retain the number 1256 until recovery of the diagram allows their correct assignment to one of the new catalogue numbers.

Collected by Utterback, 1903

The following specimens were all collected in the Morrison Formation at Quarry B, Red Fork of the Powder River, Johnson County, Wyoming, by Utterback in 1903. Unless otherwise stated, all but the first four (312, 1253, 36670, 21775) were originally catalogued CM 1256.

- 312 A series of 22 median and postmedian caudal vertebrae with a few attached chevrons and the distal end of a possibly associated right ischium. The vertebrae were for the most part articulated. A left dentary, left scapula, both coracoids, series of ribs, two metatarsals and a phalanx, originally assigned to 312, almost certainly belong to other individuals and have been recatalogued.
- 1253 A well preserved series of 12 chevrons possibly belonging to CM 36031 below.
- 36670 Left dentary, formerly referred to CM 312. It is very doubtful that it belongs to the same individual as the tail to which that number is now restricted.
- 21775 Left humerus, radius, and ulna of *Camarasaurus* (perhaps originally assigned to CM 312) which were used in the mounted skeleton of *Diplodocus carnegii*, but not in the casts of the skeleton sent to other museums around the world (blown up models of CM 662 replaced these bones in the cast skele-

ton). To this individual has also been assigned a left scapula, both coracoids and a series of ribs which were originally part of CM 312; also a right scapula and sternal plate originally CM 1256.

- 36039 Four anterior cervicals.
- 36040 A large anterior dorsal.
- 36042 Incomplete dorsal centrum.
- 36032 First caudal and another anterior caudal.
- 36036 Posterior caudal centrum.
- 36031 Series of 16 articulated anterior caudals.
- 36019 Both scapulae, right coracoid, both humeri, left radius, left ulna.
- 36028 Upper end of large right scapula.
- 36043 Left scapula.
- 36030 Left scapula.
- 36029 Small right scapula.
- 36027 Right coracoid.
- 36025 Left coracoid.
- 28846 Both ischia, right pubis.
- 36024 Right ischium and pubis.
- 28847 Right ischium.
- 36021 Both femora.
- 36020 Right tibia and fibula of a smaller individual.
- 36023 Right tibia.
- 36022 Right fibula.
- 21742 Caudal centrum from the Morrison Formation at Quarry L, Freezeout Hills, Carbon County, Wyoming.
Collected by Gilmore, 1902
- 21743 Anterior caudal arch. Same data as the above.
Collected by Gilmore, 1902
- 1200 Six caudal centra from the Morrison Formation of Joe Wittecombe's Ranch, Sweet Creek County, Montana.
Collected by Silberling, 1903
- 2789 Caudal from the ?Morrison Formation of the Texas panhandle.
Collected by Hammon, 1926
- 574 Right pubis. This number was intended for the greater portion of a *Camarasaurus* skeleton from the Morrison Formation of Quarry C, Sheep Creek, Albany County, Wyoming. The bulk of the material proved to be poorly preserved and was discarded. All that remains (in addition to the pubis) are two dorsals, a half dozen caudals, right scapula, right coracoid and a left ilium, of which four of the caudals (DU 2 to 5), scapula (DU 9) and coracoid (DU 10) were transferred to

Duquesne University, but recently returned to the Carnegie Museum of Natural History. Collected by Peterson and Gilmore, 1900–1901

- 21734 Dorsal, right pubis and left ischium from the Morrison Formation of Quarry K, Sheep Creek, Albany County, Wyoming. The right femur has been transferred to the University of California, Berkeley.

Collected by Gilmore, 1902

- 21720 Cast of right metacarpals I–V. The original, AMNH 965, was found in the Morrison Formation at Bone Cabin Quarry, north of Medicine Bow, Wyoming. It was figured by Osborn—Bull. Amer. Mus. Nat. Hist. (1904), 20:182, Fig. 1, correctly as *Morosaurus* sp. (a junior synonym of *Camatasaurus*). Later he reconsidered and assigned the foot to *Diplodocus*, sending a cast to Pittsburgh for use in the *Diplodocus* mount, where scaled down models were employed. The manus was figured by Abel—Abh. Zool.-Bot. Ges. Wien (1910), 5:27, Figs. 3–5.

Original collected by Kaisen, 1903

The following centra referred by Hatcher to *Astrodon* (*Pleurocoelus*) all belong to very young individuals. They do bear a resemblance to that Lower Cretaceous Maryland genus in their enlarged pleurocoels. On similar grounds Marsh (Dinosaurs of North America, 16th Ann. Rept. U.S. Geol. Surv., 1896, p. 184, Figs. 35–41) named some juvenile remains from Quarry 1, Como Bluff, Wyoming, *Pleurocoelus moutanus*. The latter are almost certainly a juvenile *Camarasaurus gaudis*, and it appears likely that Hatcher's vertebrae are likewise referable to *Camarasaurus*, the enlarged pleurocoels being a juvenile character.

- 578 A cervical and a dorsal centrum from the Morrison Formation at Quarry C, Sheep Creek, Albany County, Wyoming. They are described and figured by Hatcher—Ann. Carnegie Mus. (1903c), 2:9–10, Figs. 1–4, as *Astrodon johnstoni*.

Collected by Gilmore, 1901

- 585 Distal caudal centrum found in the Morrison Formation at Quarry E, Sheep Creek, Albany County, Wyoming. It was figured by Hatcher—Ann. Carnegie Mus. (1903c), 2:11, Figs. 5–6, as *Astrodon johustoni*.

Collected by Gilmore, 1901

FAMILY DIPLODOCIDAE

Genus *Diplodocus* Marsh, 1878

Diplodocus longus Marsh, 1878

The following specimens from Dinosaur National Monument have been referred to *D. longus* in the literature, although it is not unlikely that a definitive study will show that they should be transferred to *D. carnegii*, if as is likely the specific differentiation of these two forms is verified.

- 3452 Skull, mandible, cervicals 1–6 in articulation. This is the only specimen of *Diplodocus* in which a reasonably complete skull has been found in articulation with postcranial elements. It was found in the Morrison Formation at the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah (DNM 220). It was mentioned by Holland—Mem. Carnegie Mus. (1924b), 9:385–386, 403, and figured Pl. 15, Fig. 2. Described by McIntosh and Berman—J. Paleo. (1975), 49:187, Fig. 2—and by Berman and McIntosh—Bull. Carnegie Mus. Nat. Hist. (1978), 8:14–16, Figs. 2–3. The specimen is mounted and was placed on exhibition in 1915.

Collected by Douglass et al., 1915

- 37006 Half a cervical bearing the number DNM 220/3, thus possibly it might pertain to the last specimen. However, it appears not to.
- 11161 Skull and mandible, complete and uncrushed (DNM 160/10). This skull was found beneath the tail of *Apatosaurus*, CM 3378, and was otherwise relatively isolated at the same quarry as the above. It was described and figured by Holland—Mem. Carnegie Mus. (1924b), 9:385–402, Figs. 1–3 and 8–11, Pls. 40–42—by Haas—Ann. Carnegie Mus. (1960), 36: Figs. 7–8—by McIntosh and Berman—J. Paleo. (1975), 49:187–195, Figs. 1, 3, 5—and by Berman and McIntosh—Bull. Carnegie Mus. Nat. Hist. (1978), 8:14, Figs. 2, 9. This superbly preserved specimen, which has furnished more detailed information about the sauropod skull than probably any other was discovered by Douglass appropriately on Thanksgiving Day, 1912, after three relatively frustrating years of searching for skulls, at the great dinosaur quarry.

Collected by Douglass, 1912

- 11255 Skull and mandible (juvenile) (DNM 351). Same data as the above. Mentioned by Hol-

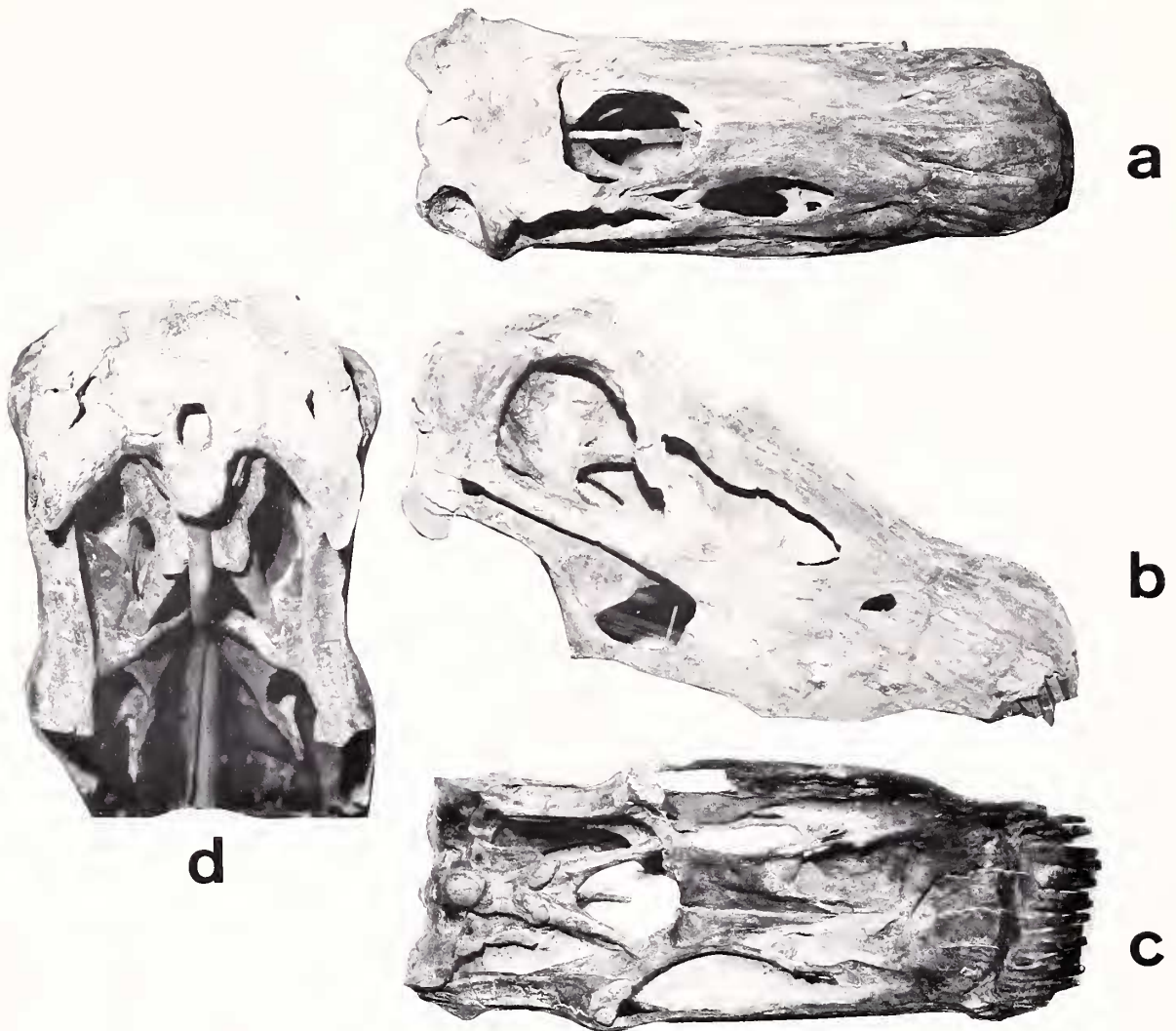


Fig. 6.—Skull of *Diplodocus longus*, CM 11161; a) dorsal view; b) right lateral view; c) palatal view; d) posterior view.

land—Mem. Carnegie Mus. (1924*b*), 9:386, 403, and figured Pl. 43. CM 11394 is a second number applied to this specimen.

Collected by Douglass et al., 1921

21763 Right fibula and astragalus (DNM 150/11). These bones are part of an articulated skeleton from the same locality as the above, the remainder of which has been transferred to the Denver Museum of Natural History (DMNH 1494) where it is mounted and on display. It consists of the vertebral column complete from cervical 8 to caudal 20, right scapula–coracoid, complete pelvis, and both hind limbs without feet. The right femur was

originally catalogued CM 11970. Pictured in Colorado Mus. Nat. Hist. (now Denver Mus. Nat. Hist.) (1947), popular series No. 1:64–65, and in subsequent guides of the Denver Museum.

Collected by Douglass et al., 1912–1915

21738 Left radius and ulna found with the above skeleton (DNM 205/C) and not unlikely belonging to it.

Collected by Douglass et al., 1913

26552 Braincase (formerly catalogued CM 1201, which had been assigned to two specimens) (DNM 175/A). Same data as the above. De-

scribed and figured by Berman and McIntosh—Bull. Carnegie Mus. Nat. Hist. (1978), 8:19–21, Figs. 3–6.

Collected by Douglass et al., 1913

The following specimens were all collected in the Morrison Formation at the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah, by Douglass et al., 1909–1922, and may belong to the same species as the above.

- 21718 Teeth preserved in place, the jaws having decayed away (DNM 130/CA).
 33984 Several cervicals (DNM 102, part).
 30772 Three cervicals, questionably referred to this genus (DNM 66).
 21745 Articulated series of dorsals, sacrals and caudals, left ilium (incomplete), and right femur (DNM 145).
 3388 Two dorsal centra with bases of arches (DNM 15).
 30768 Dorsal centrum (DNM 285/53).
 21728 Sacrum, incomplete left ilium, ischia (DNM 89).
 33977 Articulated series of antero-medial caudals (DNM 148).
 11975 Four articulated postmedian caudals (DNM 168/A). A right femur originally catalogued with these bones has been removed to 21745.
 21714 Postmedian caudal (DNM 39/65H).
 33904 Posterior caudal (DNM 99).
 30763 Three caudals, right tibia–fibula–astragalus, ribs, and an associated right scapula–coracoid which may belong to the same individual (DNM 285, part). (Part of what was formerly catalogued CM 2969.)
 38339 Rib (found with 202/F) perhaps belonging here.
 30764 Right scapula (DNM 285/H). (Formerly part of CM 2969.)
 10004 Left scapula–coracoid (DNM 210/9). (Two scapulae, a coracoid and a fibula of other individuals formerly referred to this number have been recatalogued; see 33924, 33925, 33926.)
 33926 Right scapula (DNM 210/3). (Formerly part of 10004.)
 33961 Left scapula (DNM 45/18?).
 38335 Small right scapula (DNM 285/H).
 21721 Right humerus, radius and ulna (DNM 228).
 30773 Left humerus, left pubis, left ischium (DNM 350 and 345/A). A large part of the vertebral column of this animal remains to be pre-

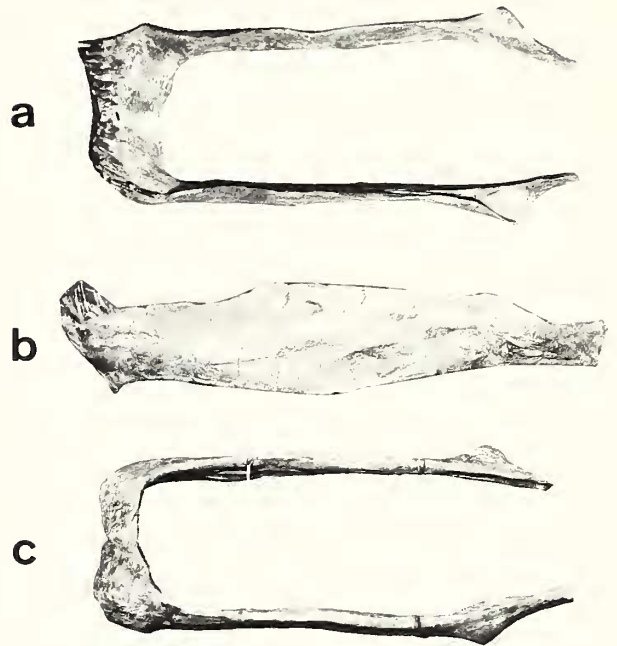


Fig. 7.—Mandible of *Diplodocus longus*, CM 11161; a) dorsal view; b) left lateral view; c) ventral view.

- pared. (Pelvic bones originally catalogued as part of CM 9000.)
 33959 Left radius (DNM 238/1).
 33962 Incomplete right ilium and pubis (DNM 146/B).
 21747 Pair of pubes (juvenile) (DNM 231).
 33947 Incomplete right pubis (DNM 228/7) probably belonging to this form.
 3389 Right ilium (juvenile) (DNM 4).
 33987 Left ischium (DNM 270/14).
 33991 Left femur and tibia (DNM 160/G and H). These belong to a young individual found associated with *Apatosaurus* CM 3378 and formerly catalogued as part of it.
 3377 Left femur (juvenile) (DNM 172).
 21710 Left femur (DNM 334). This femur is on exhibition as a “touch” bone. It was pictured by Berman—Carnegie Mag. (1971), 45:95.
 21753 Left femur and head of right tibia, perhaps belonging to two individuals (DNM 151/A).
 21754 Left femur (small) (DNM 219).
 21771 Right femur (DNM 60/14), transferred to the South African Museum, 1977.
 21788 Left femur (small), transferred to the USNM with *Barosaurus* material and returned.
 30762 Right femur (small) (DNM 120/P).
 33951 Right tibia (DNM 228/6).

- 33953 Right tibia (DNM 285/38).
 33967 Left tibia (DNM 160/K), found associated with *Apatosaurus* skeleton CM 3378 and originally catalogued as part of it.
 33924 Right fibula (DNM 210/2) (originally part of CM 10004).
 33950 Left fibula (DNM 285/10).
 30767 Right fibula, astragalus and pes (DNM 175/G) originally catalogued as part of CM 2905.
 33928 Right fibula (DNM 232/22).
 21741 Right astragalus (DNM 60/16). The associated right femur was transferred to the North Carolina Museum in Durham, North Carolina, where it is on display. The associated right tibia and fibula have been transferred to the Royal Ontario Museum in Toronto.
 33941 Left metatarsal III (DNM 39/15).
 37013 Chevrons 11, 12, 13 being casts of the "transition region" chevrons of AMNH 223 from the Morrison Formation of Como Bluff, Wyoming. Figured by Osborn—Mem. Amer. Mus. Nat. Hist. (1899), 1: Figs. 10 and 13.

Original collected by Osborn and Brown

Diplodocus carnegii Hatcher, 1901

- 84 Cervicals 2–15, dorsals 1–10, sacrals 1–5, caudals 1–12, 18 ribs, left scapula (not right as stated by Hatcher), left coracoid, right ilium and a fragment of the left, pubes, ischia, right femur, both sternal plates, supposed clavicle. *Type specimen*. It was found in the Morrison Formation of Quarry D (not C as stated by Hatcher) also referred to as Quarry 3 of 1899 of Sheep Creek, Albany County, Wyoming. It was discovered by A. Coggeshall on 4 July, 1899. It was described by Hatcher—Mem. Carnegie Mus. (1901b), 1:1–57 and figured as follows: cervicals, Pls. 2–6 and Fig. 6; dorsals, Pls. 7–8; caudals, Pl. 9; sternal plates, Fig. 12; "clavicle," Fig. 13. Preliminary reports by Holland—Science, n.s. (1900), 11:816–818—and Hatcher—Science, n.s. (1900b), 12:828–830. This specimen forms the core of the skeleton which was mounted and put on display in 1907. The latter was completed by additions from several other individuals as follows: CM 94 (median caudals, right scapula–coracoid,

right tibia–fibula–pes), CM 307 (distal caudals). The skull was modelled from the braincase of CM 662 and skull USNM 2673. The right forelimb (and also the left forelimb of the eleven casts of the skeleton sent to museums throughout the world) was accurately modelled from the smaller individual CM 662. The forefeet were modelled from the larger manus AMNH 965 now known to belong to *Camarasaurus*, and too many phalanges were assigned to the manus. In the Carnegie Museum of Natural History original only, the left forelimb CM 21775 now assigned to *Camarasaurus* was used, as were left fibula and partial pes CM 33985. Casts of the skeleton were sent to London, Berlin, Paris, Vienna, Madrid, St. Petersburg (now Leningrad), Bologna, La Plata, Mexico City, Munich, and another was made in Vernal, Utah.

Collected by Wortman, W. H. Reed, A. S. Coggeshall, and W. C. Reed, 1899

- 94 Nine cervicals, nine dorsals, sacrum, 39 caudals, ribs, five chevrons, scapulae–coracoids, sternal plates, ilia, pubes, ischia, left femur, right tibia, right fibula, right astragalus, complete right pes. *Paratype*. A second individual is indicated by a second pair of ischia, a fragment of a pubis, and an incomplete second left femur. In addition eight of the caudals clearly belong to a larger individual, which might possibly be CM 84 above. It came from the same quarry as CM 84. As stated above the right scapula–coracoid, tibia, fibula, pes and some caudals and chevrons were used to complete the mount of CM 84. The left femur (as well as the other fragmentary one) and six caudals were transferred to the Cleveland Museum of Natural History to supplement skeleton CM 662 which was transferred there. Later these were again transferred to Houston where the femur was incorporated into the mount, but the caudals were returned to Pittsburgh. The skeleton was described by Hatcher—Mem. Carnegie Mus. (1901b), 1:1–57, and figured as follows: co-ossified caudals, Fig. 11; scapula–coracoid, Fig. 14; sacrum and pelvis, Pl. 10, Figs. 1–2; femur, Figs. 15–17, 23; tibia–fibula, Fig. 18–19, Pl. 11 1–2; pes, Figs. 20–21, Pl. 11 1–2. The pelvis was figured by

Hatcher—Mem. Carnegie Mus. (1903*d*), 2: Pl. 4, Fig. 2—and the pubis was figured by Gilmore—Mem. Carnegie Mus. (1936*a*), 11:263, Fig. 37, where it was erroneously stated to be that of *Apatosaurus* CM 563.

Collected by Peterson and Gilmore, 1900

- 33985 Left fibula and probably left metatarsals III, IV, V from the same quarry as the type and paratype but not belonging to either. These were used to complete the mounted skeleton.

Collected by Peterson and Gilmore, 1900

- 30765 Two metatarsals from the Morrison Formation of Wyoming, quarry not known.

Collected by Wortman et al., 1899

Diplodocus hayi Holland, 1924

- 662 Only the "clavicle" and perhaps two dorsal arches remain at the Carnegie Museum. The greater part of this skeleton, consisting of the cranium, 10 cervicals, five dorsals, 33 caudals, numerous ribs and chevrons, scapulae, coracoids, sternal plates, humeri, radii, left ulna and part of manus, pubes, ischia, left tibia, fibulae, astragali, part of pes, was transferred to the Cleveland Museum of Natural History (CMNH 10670) and later to the Houston Museum of Natural Science, where the skeleton has been mounted and is on exhibition. The sacrum and ilia were not transferred to Cleveland but were sent to Houston at a later date. The left femur was not transferred to Cleveland either, and its current whereabouts are unknown. *Type specimen.* The skeleton from the Morrison Formation was found isolated at Quarry A, Red Fork of the Powder River, Johnson County, Wyoming. The cranium was described and figured by Holland—Mem. Carnegie Mus. (1906), 2:225–246, Figs. 4–10. Some of Holland's interpretations were criticized by Hay—Science, n.s. (1908), 28:517–519—and answered by Holland—Science, n.s. (1908), 28:644–645. Other figures and description was provided by von Huene—Neues Jahrb. Min. Geol. Pal. (Beil.-Bd.) (1914), 37:579–580, Pl. 9, Fig. 1. Still further discussion appears in Holland—Mem. Carnegie Mus. (1924*b*), 9:397–401—where it is established as the type of the new species *D. hayi*.

Hatcher described and figured the radius and ulna—Mem. Carnegie Mus. (1903*e*), 2:72–73, Figs. 1–2.

Collected by Utterback, 1902–1903

- 36041 Spine of anterior caudal marked "662" on one side and "1256" on the other. It is from the Morrison Formation on the Red Fork of the Powder River, Johnson County, Wyoming. The former specimen is from Quarry A, the latter from Quarry B. Two posterior dorsal arches and spines similarly marked both with "662" and "1256" also belong to *Diplodocus*, but have not yet been recatalogued.

Collected by Utterback, 1903

Diplodocus sp.

- 86 Right femur from the Morrison Formation of Quarry 2, Dyer's Ranch, Carbon County, Wyoming. It was figured by Hatcher—Mem. Carnegie Mus. (1901*b*), 1: Pl. 11, Figs. 3–4—and has been transferred to the Utah Natural History State Museum, Vernal, Utah (UNHSM V 16B).

Collected by Wortman et al., 1899

- 1201 A dorsal and a caudal centrum from the ?Morrison Formation on Joe Wittecombe's Ranch, Sweet Creek County, Montana.

Collected by Silberling, 1903

- 3395 Caudal from the Morrison Formation 50 mi south of Grand Junction, Colorado.

Collected by McMillen, 1914

- 307 Articulated series of 38 posterior caudals including "whiplash." This tail was found in the Morrison Formation at Quarry B, Red Fork of the Powder River, Johnson County, Wyoming. It was described and figured by Holland—Mem. Carnegie Mus. (1906), 2:252–255, Pl. 29—and was used to complete the tail of the mounted *Diplodocus*.

Collected by Utterback, 1903

- 2098 Right femur (distal half), right tibia, right fibula, right astragalus, right pes from the Morrison Formation near Brown's Ranch, Elk Mountains, Johnson County, Wyoming.

Collected by Utterback, 1906

- 2099 Left tibia and part of pes. Same data as above.

Collected by Utterback, 1906

- 21749 An astragalus probably belonging to *Diplodocus*, which was collected with astragalus CM 21748 of *Apatosaurus* at the American



Fig. 8.—Cervical vertebra of *Barosaurus lentus*, CM 1198.

Museum Quarry at Bone Cabin Quarry, north of Medicine Bow, Wyoming.

Collected by Gilmore, 1902

- 887 Seven postmedian caudals, a phalanx, and a chevron taken from the Morrison Formation at the Marsh-Felch Quarry at Garden Park, north of Cañon City, Colorado.

Collected by Utterback, 1901

Genus *Barosaurus* Marsh, 1890

Barosaurus lentus Marsh, 1890

- 11984 Articulated series of presacral vertebrae extending from the anterior part of the neck to the mid-dorsal region, several ribs. At the time of this writing less than half of the cervicals and dorsals have been freed from the matrix. Associated and perhaps belonging to the same individual is the greater part of the right manus (see however 21744 below). The specimen comes from the Morrison Formation at the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah (DNM 310).

Collected by Douglass et al., 1918–1919

- 1198 An associated series of cervical vertebrae (DNM 150/B) from the same horizon and locality as the above. Ten vertebrae were collected but only four were sufficiently well preserved to be saved. The trunk, sacrum, and tail found in association with this neck were originally thought to belong to *Diplodocus* and were given a separate field number (DNM 155). Same data as the above. The

latter specimen was transferred to the Royal Ontario Museum in Toronto (ROM 3670). Some of the limb bones numbered 155 may belong to this specimen, but many do not. One caudal each transferred to North Carolina Museum, University of Texas, and University of Cincinnati.

Collected by Douglass et al., 1913–1915

- 21744 Distal half of humerus, radius, ulna, and most of manus of an articulated right forelimb, not improbably belonging to this genus (DNM 312). Only the humerus among forelimb elements has been found with remains of this animal before. The metacarpals are more elongate and slender than in *Diplodocus*. If this specimen does indeed belong to *Barosaurus*, then the manus mentioned under 11984 does not and most likely is that of *Apatosaurus*. Same data as the above.

Collected by Douglass et al.

- 33978 Anterior half of left ilium and head of left pubis, perhaps belonging to same individual as CM 1198 (DNM 155/C, incorrectly labelled 150/C).

Collected by Douglass et al., 1915

- 21719 Right humerus which lay close to the neck CM 1198 and was assigned the same number as the Toronto specimen (DNM 155/Hum 2), but would appear to be too long to go with it. It is very long and slender, more so than the only known *Barosaurus lentus* humerus AMNH 6341. Although crushed, it is questionable that the crushing could account for

the differences. It may belong to the Denver *Diplodocus* (DNM 150) found nearby, or may even belong to the genus *Brachiosaurus*.

Collected by Douglass et al.

- 11878 Postmedian caudal vertebra and upper ends of tibia and femur (DNM 347). Same data as above. The caudal has been transferred to the University of Michigan (V 16778).

Genus *Apatosaurus* Marsh, 1877

Syn.: *Brontosaurus* Marsh, 1879.

Elosaurus Peterson and Gilmore, 1902.

Apatosaurus excelsus (Marsh), 1877

Syn.: *Brontosaurus excelsus* Marsh, 1877.

Brontosaurus amplus Marsh, 1881.

Elosaurus parvus Peterson and Gilmore, 1902.

- 563 Skeleton consisting of nine cervicals, nine dorsals, five sacrals, 18 caudals, left scapula-coracoid, humeri, radii, ulnae, right manus, left ilium, pubes, ischia, right femur, tibiae, right fibula, right metatarsals I, III, IV, V, a phalanx and a claw, collected from the Morrison Formation at Quarry E, Sheep Creek, Albany County, Wyoming. At present only the pubes, ischia, and a caudal spine remain in Pittsburgh, the balance having been transferred to the University of Wyoming W. H. Reed Museum in Laramie, where it is mounted and on exhibit. The forelimb and foot were described by Hatcher—*Science*, n. s. (1901c), 14:1015–1017 and in more detail in *Ann. Carnegie Mus.* (1901d), 1:356–376, Pls. 19–20. Hatcher figured the pelvis and sacrum in *Mem. Carnegie Mus.* (1903d), 2: Pl. 4, Fig. 1. Gilmore described the entire skeleton—*Mem. Carnegie Mus.* (1936a), 11:245–264, and figured the following elements: cervicals, Pl. 31; dorsals, Pl. 32; sacrum and pelvis, Figs. 31 and 36; caudals, Pl. 33; scapula-coracoid, Fig. 32; humerus, Fig. 33; radius and ulna, Fig. 34; manus, Fig. 35.

Collected by Gilmore, 1901

- 37010 Left astragalus, claw of pes found in the wash of Quarry E, Sheep Creek, Albany County, Wyoming. They are placed here as they might belong to the above skeleton, in which these elements were missing.

Collected by Peterson and Gilmore, 1900

- 21785 Left femur, metacarpal, and 10 caudals belonging to a skeleton largely discarded, from the same locality as the above. A caudal and the right femur have been transferred to Duquesne University (DU 11).

Collected by Peterson and Gilmore, 1900

- 21740 Seven anterior caudals, left pubis, right ischium, right femur, and right tibia from the Morrison Formation at Quarry A, Sheep Creek, Albany County, Wyoming. The femur (erroneously marked CM 85) has been transferred to the Royal Ontario Museum where it is on exhibit.

Collected by Peterson and Gilmore, 1900

- 1188 Sacrum, right ilium, five anterior caudal centra, collected from the Morrison Formation at Quarry F, Sheep Creek, Albany County, Wyoming. The ilium and sacrum were figured by Hatcher—*Mem. Carnegie Mus.* (1901b), 1: Pl. 10, Fig. 3—but they have been transferred elsewhere and their current whereabouts are unknown.

Collected by Peterson and Gilmore, 1900

- 33994 Proximal extremity of a truly colossal femur, rivaling in size that of the gigantic "*Atlantosaurus immanis*" (= *Apatosaurus ajax*) YPM 1840. It was collected in the Morrison Formation at Quarry B, Sheep Creek, Albany County, Wyoming.

Collected by Peterson and Gilmore, 1900

- 87 Two dorsals, three caudals, left pubis, ischia, left femur, fragment of limb, from the Morrison Formation of Quarry 4, Sheep Creek, Albany County, Wyoming. One dorsal has been transferred to the University of Michigan (V 16777) where it is on exhibition.

Collected by Wortman et al., 1899

- 595 Caudal centrum of a very young animal from the Morrison Formation at Sheep Creek, Albany County, Wyoming, probably belonging to this animal.

Collected by Gilmore, 1901

- 89 Complete right pes with astragalus from the Morrison Formation at Quarry 5, Sheep Creek, Albany County, Wyoming. It was figured by Hatcher—*Mem. Carnegie Mus.*

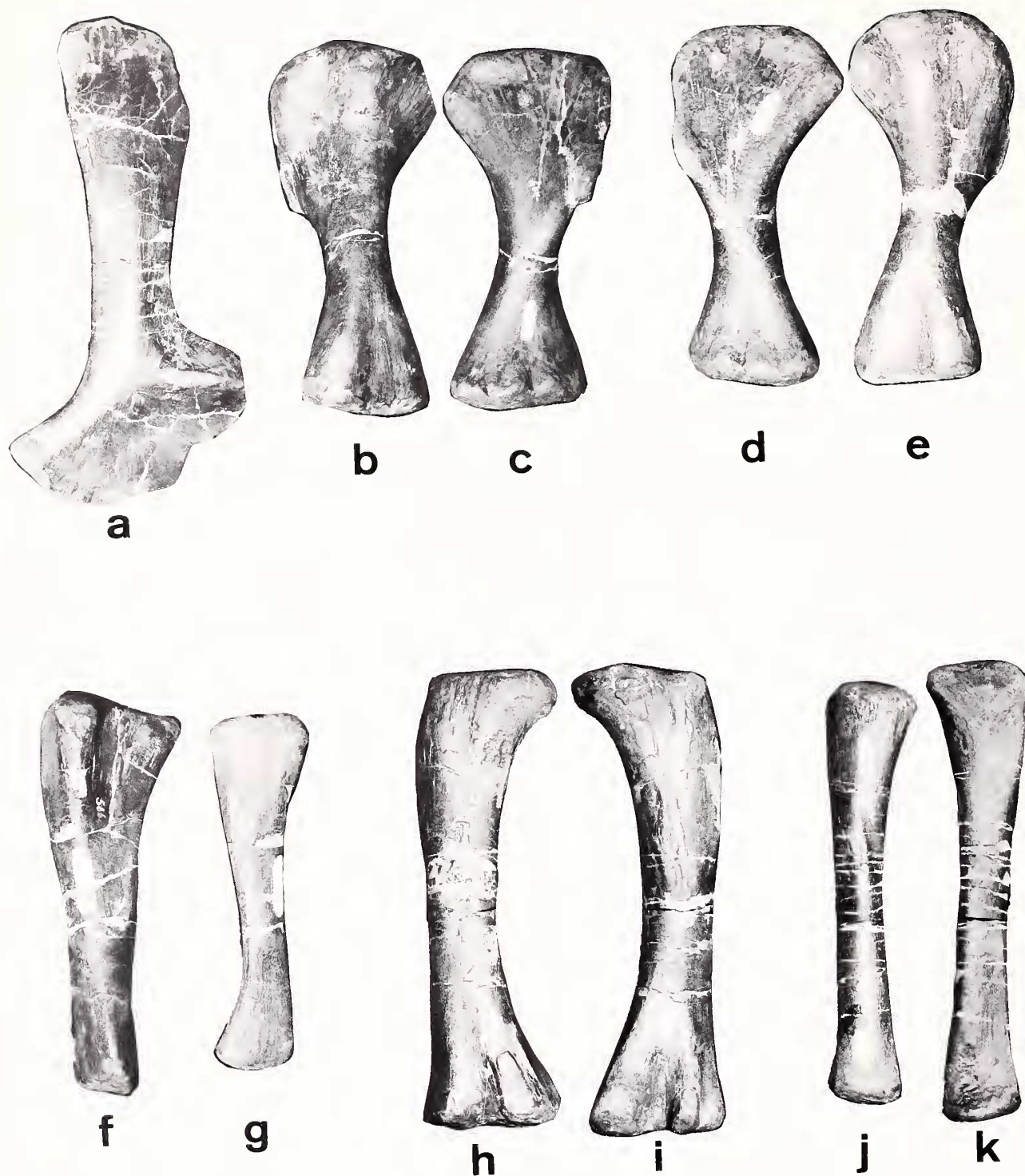


Fig. 9.—Limb bones of "*Elosaurus parvus*" (= *Apatosaurus excelsus*), CM 566; a) right scapula, lateral view; b, c) left humerus, posterior and anterior views; d, e) right humerus, anterior and posterior views; f, g) right ulna, anterior and lateral views; h, i) right femur, anterior and posterior views; j, k) left fibula, lateral and medial views.

(1901*b*), 1:52, Fig. 22—and described by Gilmore—Mem. Carnegie Mus. (1936*a*), 11:234–242.

Collected by Wortman et al., 1899

555 A right radius and ulna (CM 555) and a left
556 tibia–fibula–astragalus (CM 556) together
with 11 cervicals (field nos. f1–f8, y, y',
z) found together in the Morrison Forma-
tion at Quarry D, Sheep Creek, Albany
County, Wyoming, and of proper propor-
tions to belong to a single individual. The
vertebrae originally and the limb bones later
were referred to a *Camarasaurus* skeleton
CM 584 found nearby, but this specimen is
clearly referable to *Apatosaurus*. In all like-
lihood the articulated vertebral series f1–f8
are those originally catalogued as CM 663.

Collected by Peterson and Gilmore,
1900

577 Two distal caudals from the Morrison Forma-
tion of Quarry J, Sheep Creek, Albany
County, Wyoming.

Collected by Axtell, 1901

21748 Left astragalus collected with astragalus
21749 of ?*Diplodocus* in the Morrison Forma-
tion at Bone Cabin Quarry, north of Medicine
Bow, Wyoming.

Collected by Gilmore, 1902

“*Elosaurus parvus* Peterson and Gilmore, 1902”

566 Cervical arch, dorsal arch, right scapula, hu-
meri, right ulna, right femur, left fibula, frag-
ment of ilium, fragment of pubis, and per-
haps two sacral centra. This specimen of a
very immature individual, forming the type
specimen of *Elosaurus parvus* is clearly that
of a young apatosaur as demonstrated con-
clusively by the forelimb bones. As it was
found intermingled with CM 563, it probably
belongs to *A. excelsus*. It was collected in
the Morrison Formation at Quarry E and was
described and figured by Peterson and Gil-
more—Ann. Carnegie Mus. (1902), 1:490–
499, Figs. 1–10, Pl. 25.

Collected by Gilmore, 1901

Apatosaurus louisae Holland, 1916

3018 Cervicals 1–15, dorsals 1–10, sacrals 1–5,
caudals 1–64, 18 ribs, chevrons 1–3, scapu-
lae, coracoids, humeri, left radius, ulna and
manus, ilia, pubes, ischia, right femur, tibia
and fibula, left pes. *Type specimen*. This

skeleton, the most perfect of *Apatosaurus*
ever collected, was discovered 17 August,
1909, marking the discovery of by far the
greatest Jurassic dinosaur quarry so far dis-
covered anywhere in the world. It was in the
Morrison Formation in what later was to be-
come Dinosaur National Monument, north
of the little town of Jensen, Uintah County,
Utah (DNM 1 and 25). It was described briefly
by Holland—Ann. Carnegie Mus. (1915*b*),
10:143–145, and cervical 11 was figured by
him in Ann. Carnegie Mus. (1924*a*), 15:124,
Fig. 2. The entire skeleton was described in
detail and all parts figured by Gilmore—
Mem. Carnegie Mus. (1936*a*), 11:175–300,
Figs. 5–30, Pls. 24–27, 29–30, 34. The follow-
ing specimen, a skull, may belong to this
skeleton (see below).

Collected by Douglass, 1909–1911

11162 Skull without mandible found in association
with two nearly complete skeletons of this
species, CM 3018 above and the former CM
11990 below (DNM 60/10). Holland—Ann.
Carnegie Mus. (1915*a*), 9:274–277—argued
that it probably belongs to CM 3018, a sug-
gestion opposed by Osborn, who followed
Marsh in believing that *Apatosaurus* did not
possess a “*Diplodocus*-like” skull. Holland
continued the discussion in Mem. Carnegie
Mus. (1924*b*), 9:391, Fig. 5, but his argu-
ments were rejected by Gilmore—Mem. Car-
negie Mus. (1936*a*), 11:188—because of a
confusion of this skull CM 11162 with
another, CM 11161, of *Diplodocus*. Field let-
ters from Douglass to Holland clearly dem-
onstrate that Holland’s association of CM
11162 with CM 3018 and CM 11990, and of
CM 11161 with CM 3378 is the correct one,
and that Gilmore’s is incorrect, see also
McIntosh and Berman—J. Paleo. (1975),
49:187. This skull is described and figured in
Berman and McIntosh—Bull. Carnegie Mus.
Nat. Hist. (1978), 8:21–30, Figs. 3D, 7, 8,
9—where it is argued that Holland was prob-
ably correct and that this skull is probably
that of *Apatosaurus*.

Collected by Douglass et al., 1910

11990 This number was formerly employed for the
prepared parts (a tibia and some caudals) of
an almost complete, but slightly smaller, ar-
ticulated skeleton found partly overlapping
CM 3018. It lacked only the skull, a femur,



Fig. 10.—Right femur of *Apatosaurus louisae*, CM 3018, anterior view.

one of the forelimbs, the pedes, and probably the tip of the tail. The skeleton was transferred to the Los Angeles County Museum in 1939 (LACM 52844) and the left femur has been placed on exhibit. The skeleton is pictured as it lay in the rock in Gilmore—Mem. Carnegie Mus. (1936a), 11: Pl. 21, Fig. 6, where it is erroneously stated to be that of *Diplodocus* 150. This specimen is DNM 40.

3378 Vertebral column complete and articulated from the mid-cervical region to the tip of the tail (caudal 82). This specimen (DNM 160) from the same quarry as all of the above, was found associated with several disarticulated limb bones and a skull (DNM 160/O) CM 11161 referred to *Diplodocus*. It is doubtful if any of the limb bones really belong to CM 3378. The specimen is described and figured by Holland—Ann. Carnegie Mus. (1915a), 9:277–278, Pl. 59—and by Gilmore—Mem. Carnegie Mus. (1936a), 11:204–205, Pl. 28. The specimen shows minor differences from CM 3018, but these may be due to age.

Collected by Douglass et al., 1913–1915

The following specimens were all collected in the Morrison Formation at the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah, between 1909 and 1922. They show no characters to distinguish them from the above specimens of *Apatosaurus louisae*.

33916 An articulated series of the last two cervicals, all 10 dorsals, the first sacral, and three

disarticulated sacral centra with ribs (DNM 210). The left ribs were found articulated in place, but only a few remain. A large number of limb and girdle bones belonging to more than one genus were found associated with the vertebrae and assigned the same field number 210. A number of these have been transferred to the Junior Museum and the California Academy of Science in San Francisco, others to the University of Delaware in Newark, Delaware, and some to the Lakeside Museum and Art Center in Peoria, Illinois. Future preparation and study will be needed to determine which belong to CM 33916.

Collected by Douglass et al., 1914

3390 Articulated vertebral column consisting of most of the dorsals, the sacrum, and 12 caudals, many ribs, left ilium, left pubis, left ischium of a very immature individual (DNM 24). It is likely that a series of six articulated cervicals (DNM 37) found 20 ft east of 24 belong to the same skeleton, according to Douglass. These were given the separate catalogue number 3391. Douglass also felt that a small jaw (DNM 35, now lost) found with neck 37 also belonged to the same animal. The latter contained slender peg-like teeth of the *Diplodocus* kind.

Collected by Douglass et al., 1909–1910

11339 A series of seven dorsals of a very young animal, perhaps belonging to *Apatosaurus*,

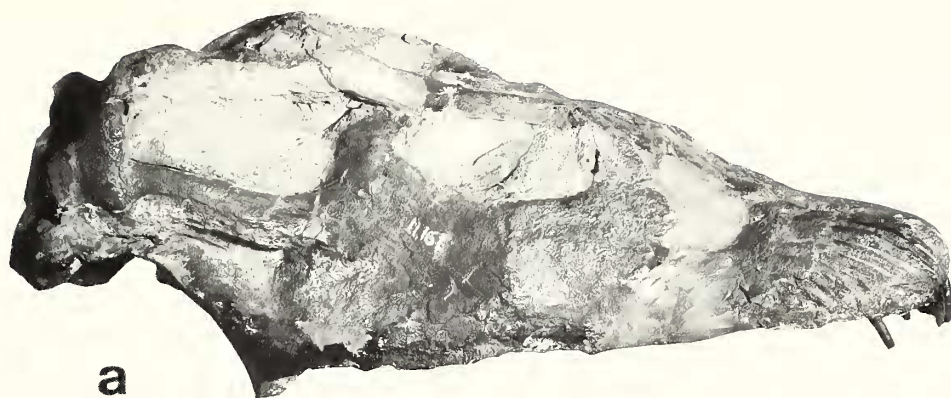
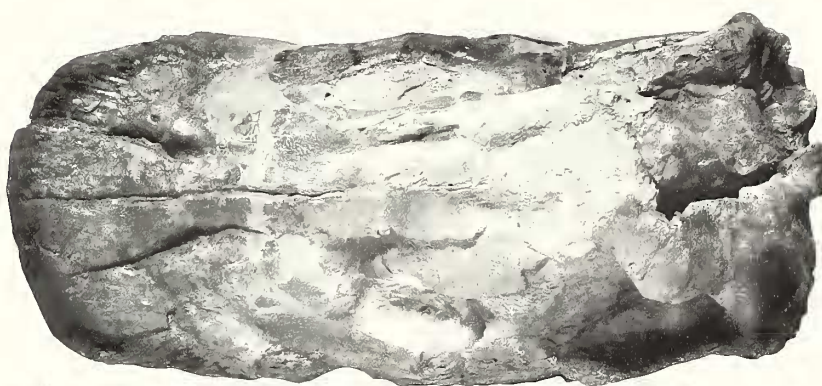
**a****b****c**

Fig. 11.—Skull of *Apatosaurus louisae*, CM 11162 (not 11161 as painted on bone); a) lateral view; b) dorsal view; c) posterior view.

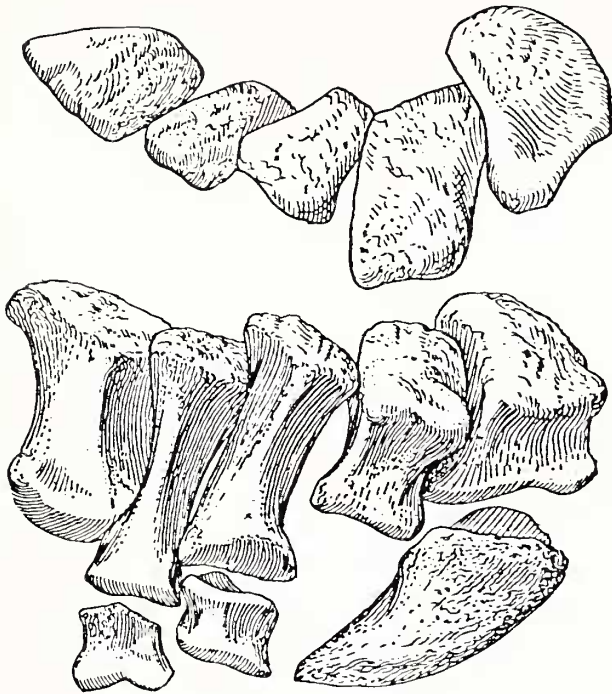


Fig. 12.—Hind foot of *Apatosaurus louisae* CM 11253.

found with a *Stegosaurus* skeleton CM 11341.

- 33968 Two dorsals (DNM 130/B).
 30766 Eleven anterior caudals, several chevrons (formerly part of CM 2905); left femur, right tibia and probably associated right radius, ulna, and partial manus (formerly CM 10000) (DNM 175/G). Other bones belonging to this skeleton have not yet been prepared.
 33912 Centrum (with DNM 45).
 21752 Two dorsals, sacrum, ilia, pubes, ischia, fore and hind limbs and feet of a juvenile (DNM 120/M, N).
 3384 Four caudals (DNM 7, part).
 21731 Anterior caudal (field number in doubt).
 33918 Four caudals (DNM 130/P).
 33921 Caudal, transferred to USNM and returned.
 36687 Left scapula–coracoid (DNM 55).
 21708 Complete left forelimb and manus (DNM 12), found somewhat to the east of the quarry in the same stratum.
 21715 Left humerus, radius and ulna found with some *Stegosaurus* remains (DNM 39/9, 10, 11).
 21717 Right ulna (DNM 39/53).
 33996 Right radius and ulna (DNM 345/A).

- 38338 Metacarpal I (found with DNM 130).
 36699 Left metacarpals II, III, IV (found with DNM 160) (juvenile).
 21780 Two metacarpals (DNM 197/66 and 71), and ?radius (DNM 197/38).
 38352 Metacarpal (DNM 232, part).
 21746 Left ilium (DNM 39/50), juvenile, used to replace the missing bone in the mounted *Camarasaurus* skeleton CM 11338.
 33980 Left pubis (DNM 130/11).
 33902 Left pubis (DNM 210/10), incomplete and referred to this genus with doubt.
 11998 Left femur (DNM 155/FA) transferred to the Newark Museum; a second (right) femur also assigned this catalogue number (DNM 155/S) is part of the "*Diplodocus*" skeleton transferred to the Royal Ontario Museum (ROM 3670).
 21756 Left femur (small) (DNM 238/2) perhaps belonging to this form.
 21784 Right femur, perhaps belonging to *Apatosaurus*.
 33976 Left femur, perhaps belonging to *Apatosaurus* (DNM 232/12).
 33997 Left femur formerly part of CM 3378 (DNM 146/B).
 21729 Right hind limb (DNM 171).
 33964 Left tibia and fibula (DNM 210/O).
 33952 Right fibula (DNM 175/2).
 30761 Left astragalus (DNM 103).
 11253 Right pes (DNM 60/2). Associated right femur transferred to the University of Cincinnati; right tibia and fibula transferred to Junior Museum, San Francisco, California, where the tibia is on exhibition.
 30770 Right metatarsal I (found with DNM 210).
 33989 Left metatarsal III (DNM 173).
 33990 Right metatarsal IV (DNM 243).

Apatosaurus sp.

- 85 Five ribs, right pubis, right ischium and fragment of the left, right femur, right tibia, right fibula from the Morrison Formation at Quarry 1, Dyer Ranch, Freezeout Hills, Carbon County, Wyoming.
 Collected by Wortman et al., 1899
 83 Anterior third of a very large femur. It is of historic importance as the "130 foot dinosaur" discovered by W. H. Reed, reported in the New York Journal. This story got Mr. Carnegie's attention and led him to commis-

sion the original Carnegie Museum dinosaur expedition, see Coggeshall—Carnegie Mag. (1951), 25:238–239.

Collected by W. H. Reed and brought to Pittsburgh by Holland

36033 Caudal from Quarry B, Red Fork of the Powder River, Johnson County, Wyoming (formerly part of CM 1256).

Collected by Utterback, 1903

36035 Two caudals. Same data as above.

2044 Dorsal (exchanged to University of Cincinnati, 1941), Morrison Formation, Cope Quarry, Garden Park, Colorado.

Collected by Utterback, 1901

37007 Right scapula from the Morrison Formation at Quarry C, Sheep Creek, Albany County, Wyoming.

Collected by Peterson and Gilmore, 1900

28849 Right humerus from the Morrison Formation of Quarry B, Red Fork of the Powder River, Johnson County, Wyoming.

Collected by Utterback, 1903

36026 Right humerus. Same data as above.

21782 Left ulna and metacarpal V, and perhaps associated metatarsal I from the Morrison Formation at Quarry O, Freezeout Hills, Carbon County, Wyoming.

Collected by Gilmore, 1903

28848 Right ischium from Quarry B, Red Fork of the Powder River, Johnson County, Wyoming (formerly part of CM 1256).

Collected by Utterback, 1903

936 Right metatarsal I. It was collected at the Marsh-Felch Quarry in Garden Park north of Cañon City, Colorado in the Morrison Formation.

Collected by Utterback, 1901

36038 Right metatarsal II from Quarry B, Red Fork of the Powder River, Johnson County, Wyoming (formerly part of CM 1256).

Collected by Utterback, 1903

The following specimens were collected by Gilmore in 1902–1903 in Quarry N, Freezeout Hills,

Carbon County, Wyoming. Most of them were originally catalogued under the "catchall" number CM 1255 (p. 15).

36691 Anterior caudal.

36692 Eleven median and posterior caudals.

36690 Caudal.

36665 Right radius and ulna, juvenile.

36672 Left manus with one carpal, five metacarpals and two phalanges.

36676 Two metacarpals.

36682 Two metacarpals.

36667 Greater portion of the right pes, juvenile.

36674 Four left metatarsals.

36683 Metatarsal I (crushed).

38347 Left phalanx II-1 of pes.

SAUROPODA, INDETERMINATE

All of these specimens are from the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Utah. They were collected by Douglass et al., 1909–1922.

37008 Cervical and rib (DNM 302, part).

33960 Dorsal centrum (DNM 39/65, part).

33900 Two very small dorsals (DNM 84).

37012 Sacral centrum (DNM ? 130/3).

33969 Caudal (DNM 312, part).

38351 Caudal and metacarpal (DNM 320, part).

37002 Rib (DNM 338).

37009 Rib (DNM 328 and 329).

38336 Proximal part of left scapula (DNM 146).

33944 Head of large right humerus (DNM 39/83).

33970 Incomplete humerus, proximal half of radius.

38348 Small metacarpal.

38346 Left metatarsal IV, left phalanx I-1, fragment (with DNM 285/C).

33907 Chevron (DNM 228, part).

33914 Left radiale, probably sauropod.

33905 Incomplete right astragalus (DNM 39/65, part).

38350 Claw of manus (DNM ? 45)

33982 Huge claw of digit I of pes (found with *Stegosaurus* skeleton CM 11341, DNM 350).

ORDER ORNITHISCHIA
SUBORDER ORNITHOPODA

FAMILY HYSILOPHODONTIDAE

Genus *Dryosaurus* Marsh, 1894

Dryosaurus altus Marsh, 1878

Syn.: *Laosaurus altus* Marsh, 1878.

3392 Skull, mandible, and greater part of skeleton from the Morrison Formation at the Carnegie Museum Quarry in Dinosaur National Monument, north of Jensen, Uintah County, Utah (DNM 26). It was described and figured by Gilmore—Mem. Carnegie Mus. (1925*b*), 10:394–403, Figs. 3–6—and the skull was figured by Galton—Nature (1977*a*), 268:231, Fig. 2a, b; in Milwaukee Public Mus., Spec. Publ. Biol. Geol. (1977*b*), 2:44–46, Figs. 2a, b; and in Mem. Soc. Géol. France (1980), 59:104, Fig. 104a, b. The mounted skeleton, placed on exhibition in 1940, was pictured by Kay—Carnegie Mag. (1940*b*), 14:215.

Collected by Douglass et al., 1910

11340 Skull and large part of skeleton of a very young individual; same data as above (DNM 360). It was described and figured by Gilmore—Mem. Carnegie Mus. (1925*b*), 10:403–409, Figs. 7–8, as *Laosaurus gracilis* but is referred to this species by Galton.

Collected by Douglass et al., 1922

1949 Three dorsals, about 28 caudals, right ilium, right femur, right tibia, right fibula, metatarsals, from the Morrison Formation of Elk Mountains, Johnson County, Wyoming. It was described and figured by Shepherd et al.—Brigham Young Univ. Geol. Studies (1978), 24:2, 11–15, Figs. 3–5—and by Galton—Mem. Soc. Géol. France (1980), 59:104, Fig. 1U, 1X.

Collected by Utterback, 1906



Fig. 13.—Skull of *Dryosaurus altus*, CM 3392, left lateral view.

21786 About 10 dorsals, sacrum, 30 caudals, humeri, both hind limbs with the shafts of many of the elements incomplete, both pedes, other bones, found by Jess Lombard at Lily Park, Moffat County, Colorado, in the Morrison Formation. Figured by Galton—Nature (1977*a*), 268:231, Figs. 2u and 2x, and also Milwaukee Public Mus., Spec. Publ. Biol. Geol. (1977*b*), 2:46, Figs. 2U and 2X. It was described and figured by Shepherd et al.—Brigham Young Univ. Geol. Studies (1978), 24:2, 11–15, Figs. 1–5.

Collected by Kay and Lloyd, 1955

Genus *Thescelosaurus* Gilmore, 1913

Thescelosaurus neglectus Gilmore, 1913

9900 Two left humeri about the same size, locality data unknown.

246 Dorsal centrum from the Lance Formation on Lance Creek, Niobrara County, Wyoming.

Collected by Hatcher, 1900

21787 Two humeri, two ulnae, two radii, fragments of ilium, metatarsal, six phalanges of several individuals from the Lance Formation of Sheep Mountain, Carter County, Montana.

Collected by Kay, 1938

38327 Three dorsals, 10 phalanges, four claws found with above.

Collected by Kay, 1938

FAMILY IGUANODONTIDAE

Genus *Camptosaurus* Marsh, 1885

Camptosaurus medius Marsh, 1894

This species has not been separated satisfactorily from the type species, *C. dispar*, the type specimens of both having come from the same quarry, YPM Quarry 13 east of Como Bluff, Wyoming. Its smaller size might be due to age or sex.

11337 The most complete skeleton of this genus yet found lacking only the skull, mandible, atlas, caudals beyond no. 14, right coracoid fore arm and manus, pedes. It came from the Morrison Formation at the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah (DNM 370 and 353). It was described and figured by Gilmore—Mem. Carnegie Mus. (1925*b*), 10:385–393, Figs. 1–2, Pl. 18—and

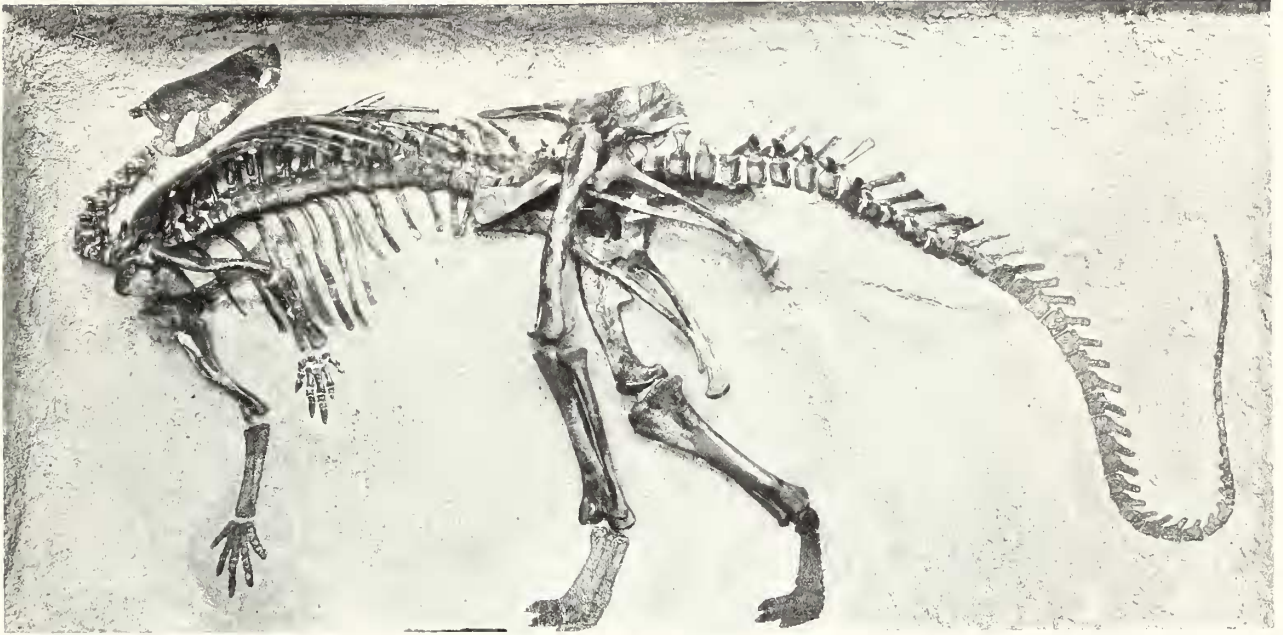


Fig. 14.—Skeleton of *Camptosaurus medius*, CM 11337.

the skeleton, mounted and placed on exhibition in 1940, is pictured by Kay—Carnegie Mag. (1940*b*), 14:214.

Collected by Douglass et al., 1922

The following specimens are all from the Carnegie Museum Quarry at Dinosaur National Monument in the Morrison Formation. They were collected 1909–1922.

- 15780 Right femur–tibia–fibula–astragalus–metatarsal (DNM 315).
- 21778 Distal end of ischium (with DNM 130/D).
- 21722 Right femur (small) (DNM 217a).
- 21723 Right femur (small) (DNM 102, part).
- 21724 Upper end of left femur (DNM 210/12).
- 21707 Left tibia (DNM 197/11).
- 38337 Incomplete tibia and fibula (DNM 130).
- 21725 Three metatarsals (DNM 358).

Genus *Rhabdodon* Matheron, 1869

Syn.: *Mochlodon* Seeley, 1889.

Rhabdodon suessii (Bunzel, 1871)

Syn.: *Iguanodon suessii* Bunzel, 1871, referred to *Mochlodon* by Seeley, 1881.

- 965 Cast of two teeth, from the Gosau Formation of Neue Welt, Wiener Neustadt, Austria. The originals in the University of Vienna Museum were figured by Seeley—Quart. J.

Geol. Soc. London (1881), 37: Pl. 27, Figs. 2–4 as *Mochlodon suessii*.

Originals collected by Pawlowitsch

FAMILY HADROSAURIDAE

Subfamily Hadrosaurinae

Genus *Hadrosaurus* Leidy, 1858

Syn.: *Kritosaurus* Brown, 1910 (see Horner, J. Paleo., 1979, 53:568).

Hadrosaurus sp.

- 1077 Cranium, part of left maxilla, left jugal and part of right from the Judith River Formation on Mud Creek, Fergus County, Montana. It was mentioned by Lull and Wright—Spec. Papers, Geol. Soc. Amer. (1942), 40:22.

Collected by Utterback, 1903

Genus *Edmontosaurus* Lambe, 1917

Syn.: *Anatosaurus* Lull and Wright, 1942 (see Brett-Surman, Nature, 1979, 277:560).

Edmontosaurus regalis Lambe, 1917

- 26258 Skull and greater part of skeleton from the Edmonton Formation (member A) of the Red Deer River Valley, Alberta. It was obtained from the Royal Ontario Museum in 1973 (ROM 1931–7) and was mentioned by Rus-



Fig. 15.—Skull and mandible of *Edmontosaurus regalis*, CM 26258.

sell and Chamney—Nat. Hist. Papers, Nat. Mus. Canada (1967), 35:11.

Collected by L. Sternberg, 1931

Edmontosaurus annectens (Marsh), 1892

Syn.: *Claosaurus annectens* Marsh, 1892.

105 Pelvis, many caudals, epidermis, etc. in poor state of preservation from the Lance Formation 2 or 3 mi north of Doegie Creek, Niobrara County, Wyoming. The epidermis was figured by Hatcher—*Science*, n.s. (1900*a*), 12:719–720—see also Hatcher—*Ann. Carnegie Mus.* (1901*e*), 1:386. Mentioned by Lull and Wright (as CM 106)—*Spec. Papers, Geol. Soc. Amer.* (1942), 40:23.

Collected by Hatcher, 1900

The following specimens were collected in the type locality for this species, that is, the Lance Formation on Lance Creek, Niobrara County, Wyoming, and likely belong to it. They were collected by Hatcher in 1900. They are mentioned by Lull and Wright—*Spec. Papers, Geol. Soc. Amer.* (1942), 40:23.

- 243 Four caudals and two phalanges.
- 245 Two caudals and one phalanx.
- 254 Left scapula.
- 252 Left astragalus and distal end of tibia.

Edmontosaurus sp.

30745 Rami of mandible, three dorsal centra, two humeri, right ulna, three pubes, metatarsal, ungual of more than one individual from the Lance Formation on Sheep Mountain, Carter County, Montana.

Collected by Kay, 1938

38321 Small right dentary. Same data as above.

Collected by Kay, 1938

9970 Right ramus of the mandible. Same data as above.

Collected by Kay, 1938

38324 Astragalus, three phalanges, two unguals. Same data as above.

Collected by Kay, 1938

38325 Tooth. Same data as above.

Collected by Kay, 1938

38328 Metatarsal. Same data as above.

Collected by Kay, 1938

38333 Pubis. Same data as above.

Collected by Kay, 1938

38329 Caudal. Same data as above.

Collected by Kay, 1938

11745 Five dorsals, five sacrals, 27 caudals, pelvis, hind limbs, and feet from the Lance Formation 15 mi south of Camp Crook, Harding County, South Dakota.

Collected by Kay, 1938

1652 Left ilium, pubis, ischium, and fibula from the Lance Formation, Hell Creek, Garfield County, Montana. Mentioned by Lull and Wright—Spec. Papers, Geol. Soc. Amer. (1942), 40:23.

Collected by Utterback, 1903

38355 Right tibia from the Lance Formation of Billy Creek, Garfield County, Montana.

Collected by McCrady, 1978

Subfamily Lambeosaurinae

Genus *Corythosaurus* Brown, 1914

Corythosaurus casuarius Brown, 1914

Syn.: *Corythosaurus brevicristatus* Parks, 1935.

9461 Skeleton lacking only skull, mandible, tip of tail, left radius and both manus from the Oldman Formation, 11 miles southeast of Steveville, Alberta, south of the Red Deer River. It was obtained from the Royal Ontario Museum in 1940 and was mounted and placed on exhibition in 1941. The missing skull was replaced by a cast of the type of *Corythosaurus brevicristatus* ROM 5856, a species which has recently been shown to be synonymous with *C. casuarius*, Dodson—Syst. Biol. (1975), 24:37–52. It is referred to by C. M. Sternberg in "Notes on the Dinosaur Quarries" accompanying Map 969A Steveville, Geol. Sur. Canada (1950), as ?*Tetragonosaurus*, map no. 86.

Collected by L. Sternberg, 1920

The following specimens were obtained from the Geological Survey of Canada in 1925. They are from the Oldman Formation near Steveville, Red Deer River, Alberta, and were collected by C. M. Sternberg in 1919.

11375 Top of skull.

11376 Jaw.

Hadrosauridae, indeterminate

12101 Part of jaw, four caudals, foot bones from the Oldman Formation of Sheep Mountain, Long Pine Hills, Montana, about 15 mi southwest of Camp Crook, South Dakota.

Collected by Kay, 1937

12100 Thirty-one caudals, six ribs or so, three chevrons, pubes, left ischium, epidermis from the Oldman Formation on Fred Townsend's Ranch, Carter County, Montana.

Collected by Kay, 1937

The following specimens are all from the Judith

River Formation on Mud Creek, Fergus County, Montana, and were collected by Utterback, Silberling, and Douglass in 1903.

1074 Right dentary and part of right maxilla, a caudal and fragments mentioned by Lull and Wright—Spec. Papers, Geol. Soc. Amer. (1942), 40:22. Collector—Utterback.

38344 Tooth. Collector—Silberling.

1072 Sacrum. Collector—Utterback.

1073 Part of sacrum and fragments. Collector—Silberling.

1071 Two dorsals, part of sacrum, two ribs, seven chevrons, scapula, ulna, radius, ilia, pubes, ischium, left tibia, fibula, three metatarsals, part of pes. Collector—Utterback.

1064 Twelve caudals, part of ilium, fragments. Collector—Silberling.

38356 Large section of the tail. Collector—Utterback (the following year, 1904).

1066 Left humerus. Collector—Utterback.

324 Incomplete right femur. Collector—Silberling.

344 Both femora. Collector—Utterback.

345 Both femora. Collector—Utterback.

325 A tibia. Collector—Silberling.

326 Right tibia. This and the next specimens were mentioned by Lull and Wright—Spec. Papers, Geol. Soc. Amer. (1942), 40:22. Collector—Silberling.

327 Small tibia and part of fibula. Collector—Silberling.

328 Right tibia (large). Collector—Silberling.

1068 Incomplete tibia. Collector—Silberling.

38353 Large metatarsal, three phalanges, section of limb bone. Collector—Douglass.

1069 Foot bone. Collector—Silberling.

38343 Ungual. Collector—Silberling.

1076 Nine caudals, six phalanges, two unguals. Collector—Utterback.

The following specimens were all collected at various sites in the Judith River Formation of Montana in 1903 by Douglass, Silberling, and Utterback.

3319 Right maxilla collected by Douglass between Fish Creek and the Musselshell River. This and the following six specimens were mentioned by Lull and Wright—Spec. Papers, Geol. Soc. Amer. (1942), 40:22. Also mentioned by Horner—J. Paleo. (1979), 53:572.

329 Dorsal, metapodial and phalanx collected by Silberling on Mud Creek, Fergus County. Mentioned by Lull and Wright—Spec. Papers, Geol. Soc. Amer. (1942), 40:22.

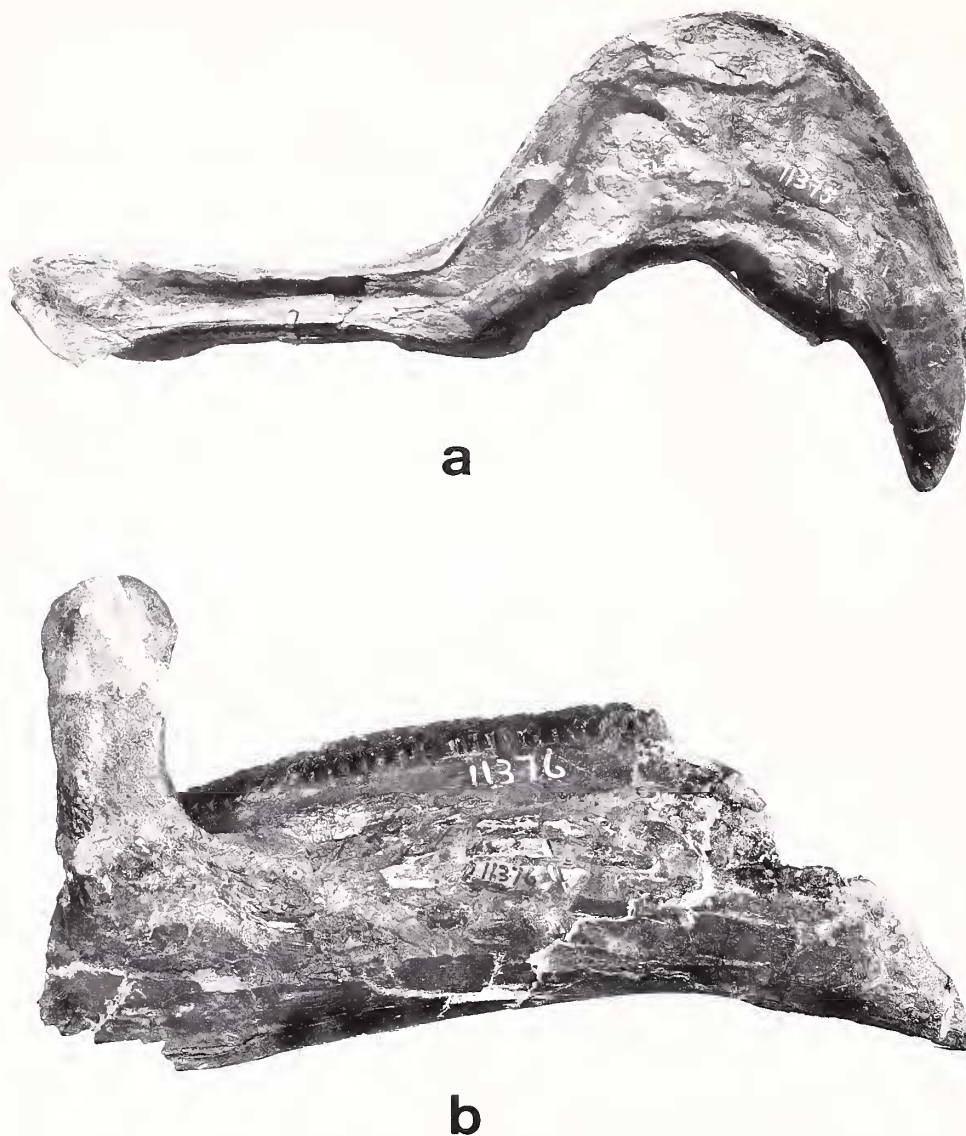


Fig. 16.—*Corythosaurus casuarius*; a) partial skull, CM 11375; b) mandible, CM 11376.

- | | | | |
|------|---|------|--|
| 281 | Sacrum. Same data as above. | 1202 | Skull parts (jugal) and part of lower jaw from the Judith River Formation on Crawford's Ranch, Sweetgrass County, Montana. Mentioned by Lull and Wright—Spec. Papers, Geol. Soc. Amer. (1942), 40:22. Collected by Silberling, 1904 |
| 1065 | Right humerus collected by Utterback on Willow Creek, Fergus County. | 594 | Various remains including a caudal from the Upper Cretaceous near Havre, Montana. Collected by Douglass, 1902 |
| 1067 | Part of right femur. Same data as above. Mentioned by Lull and Wright—Spec. Papers, Geol. Soc. Amer. (1942), 40:22. | 3363 | Incomplete right tibia and astragalus from the Fish Creek Beds on Fish Creek, Montana. Collected by Douglass, 1902 |
| 282 | Partial limb and foot bone. Same data as above but collected by Silberling. | | |
| 305 | Part of foot and fragments collected by Douglass on Mud Creek, Sweetgrass County. Mentioned by Horner—J. Paleo. (1979), 53:572. | | |
| 306 | Fragments. Same data as above. | | |

FAMILY PACHYCEPHALOSAURIDAE

Genus *Pachycephalosaurus* Brown and Schlaikjer, 1943

Pachycephalosaurus wyomingensis (Gilmore), 1931

Syn.: *Troödon wyomingensis* Gilmore, 1931.

3180 Fronto-parietal cap from the Lance Formation probably of Wyoming. Described and figured by Gilmore—Ann. Carnegie Mus. (1936b), 25:109–112, Figs. 1–3 as *Troödon*

wyomingensis. Mentioned by Brown and Schlaikjer—Bull. Amer. Mus. Nat. Hist. (1943), 82:143.

Collected by Utterback

ORNITHOPODA(?), INCERTAE SEDIS

33974 Presacral vertebra from the Morrison Formation of the Carnegie Museum Quarry at Dinosaur National Monument.

Collected by Douglass et al.

SUBORDER STEGOSAURIA

FAMILY STEGOSAURIDAE

Genus *Stegosaurus* Marsh, 1877

Stegosaurus ungulatus Marsh, 1879

There are two common and clearly distinct species of *Stegosaurus*, *S. ungulatus* and *S. stenops*. Both would appear to be represented in the fauna at Dinosaur National Monument, based on the characteristic radius and ulna. However, the three mounted skeletons compiled from material collected by Carnegie Museum of Natural History parties at that site are all to a certain extent composites, and it is not clear that bones from both species have not been used in a single skeleton. No attempt will be made here to separate individual bones as to species, pending a detailed study of this material sometime in the future.

11341 Partial skeleton consisting of the posterior dorsals, ribs, complete sacrum, pelvis and tail with tail spikes in place, and left femur (not used in mount) lacking distal end, from Carnegie Museum Quarry at Dinosaur National Monument, Uintah County, Utah (DNM 350). It forms the core of the mounted skeleton placed on exhibit in 1940. Supplementing 350 in the mount is the contents of a large block DNM 39/60AA consisting of the complete left pectoral girdle, limb, and manus, left tibia, fibula and pes, seven cervicals, as well as six dorsals and a caudal not used in the mount as they duplicated material from 350. The right radius, ulna and manus and the right tibia, fibula and pes were restored in plaster. One femur was taken from 197. The source of the other elements is unknown. Pictured by Kay—Carnegie Magazine (1940b), 14:211.

Collected by Douglass et al., 1920–1922

11372 Composite partial skeleton from same locality as above (DNM 39/60 and other material not recorded), transferred to and mounted at the Nebraska State Museum, University of Nebraska at Lincoln, in 1946.

Collected by Douglass et al.

The following specimens were all collected in the Carnegie Museum Quarry at Dinosaur National Monument, north of Jensen, Uintah County, Utah, in the Morrison Formation. No attempt is made to differentiate them as to species. They were collected by Douglass, 1909–1922.

12000 Cranium and other skull fragments (DNM 365).

21727 Dorsal, right scapula, found associated with *Camarasaurus* CM 11393.

21774 Dorsals, ? caudals, right scapula–coracoid, originally part of CM 2969 (DNM 285/C and H), and one right fibula. One dorsal was transferred to the University of Cincinnati in 1941.

33917 Dorsal, ribs and scapula (DNM 39/65a).

33934 Centrum and two arches (DNM 270/A).

21711 Sacrum and two caudals (DNM 39/17).

33931 Sacral rib (DNM 39/76).

21766 Caudal (formerly catalogued as part of *Apatosaurus* CM 3378).

21776 Caudal (DNM 231/A).

33935 Caudal (DNM 244).

33937 Four caudals (with DNM 130).

33938 Caudal centrum (DNM 120/Ra).

37005 Caudal and rib (DNM 39/60). Part of former CM 11372 (see above).

33983 Two caudals (DNM 39/78).

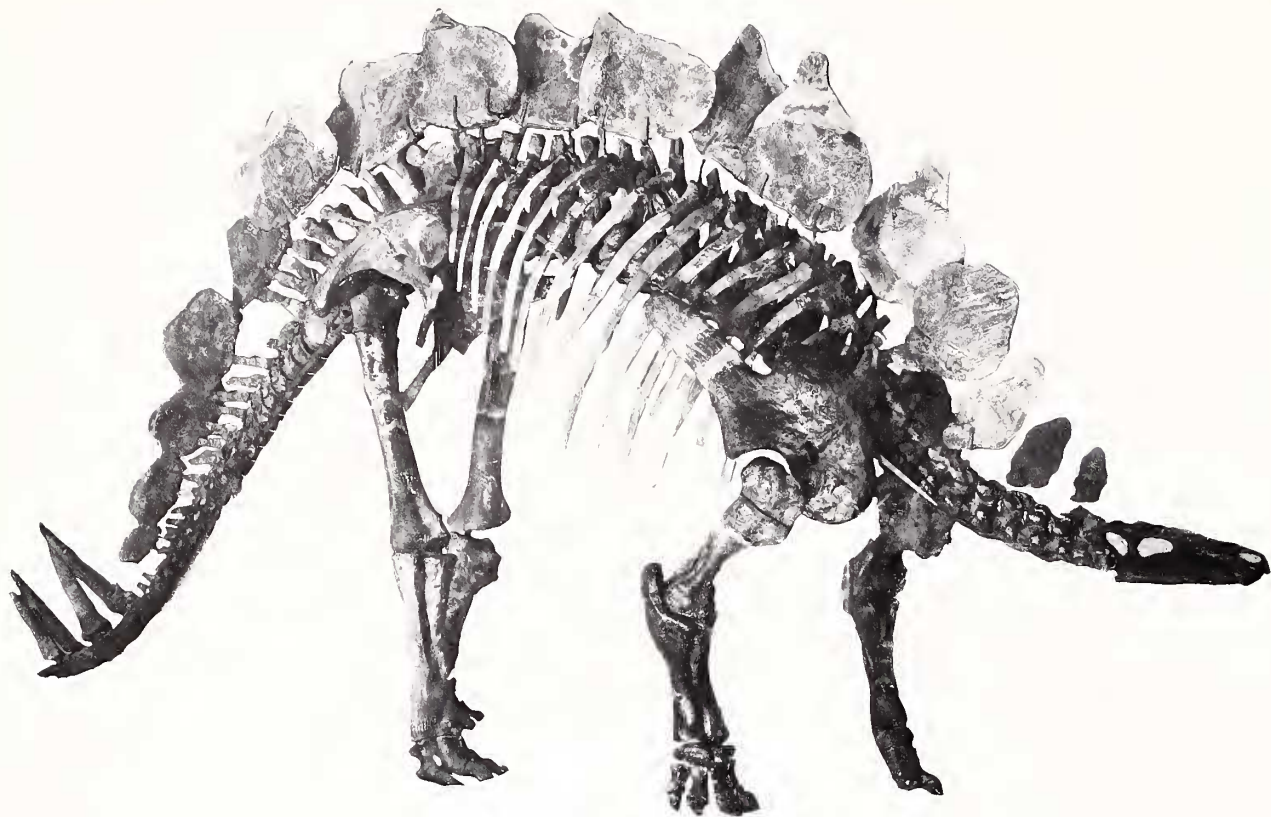


Fig. 17.—Skeleton of *Stegosaurus* "ungulatus," CM 11341.

- 33939 Caudal centrum (with DNM 130).
 33966 Distal caudal (with DNM 146).
 33940 Caudal spine (with DNM 45).
 33930 Three caudals and a rib (DNM 102, part).
 33908 Chevrons (DNM 197/31) perhaps belonging to 21770 below.
 21768 Right scapula–coracoid (with DNM 120/Ra).
 21770 Scapula–coracoid, right femur, three caudals, rib and dermal spike (DNM 197/33). Another femur associated with these remains was used in the *Stegosaurus* mount with CM 11341.
 38354 Right coracoid (DNM 226/10).
 21765 Left humerus, radius and ulna (found with *Barosaurus* skeleton DNM 310 and formerly catalogued CM 11984 and CM 11985). This limb belongs to *Stegosaurus stenops*.
 21739 Right humerus (with DNM 240), perhaps same individual as CM 21727 above.
 21761 Right humerus (?DNM 39), formerly catalogued as part of *Apatosaurus* CM 3378.
 33946 Right humerus (DNM 270), perhaps belonging with CM 33934 above.
 21767 Distal end of left humerus (DNM 348/B), formerly catalogued as part of *Barosaurus* CM 11878.
 33945 Distal half of radius (DNM 39/60, part).
 33920 Lower half of right ulna, carpal, metacarpal I, metacarpal, transferred to Washington with *Barosaurus* (DNM 340) neck and returned.
 33922 Carpal.
 33923 Carpal.
 33936 Ulna (DNM 39/60Q).
 33932 Metacarpal I.
 33933 Metacarpal.
 33992 Incomplete left ilium (DNM 102/6).
 38340 Left femur (damaged), tibia, fibula, astragalus (DNM 320/A, B, C).
 10001 Right femur, coracoid (DNM 197), transferred—present location unknown; probably used in one of the three mounts in Pittsburgh, Lincoln, and Toronto.
 21709 Left femur (DNM 319).
 21755 Left femur (DNM 59).

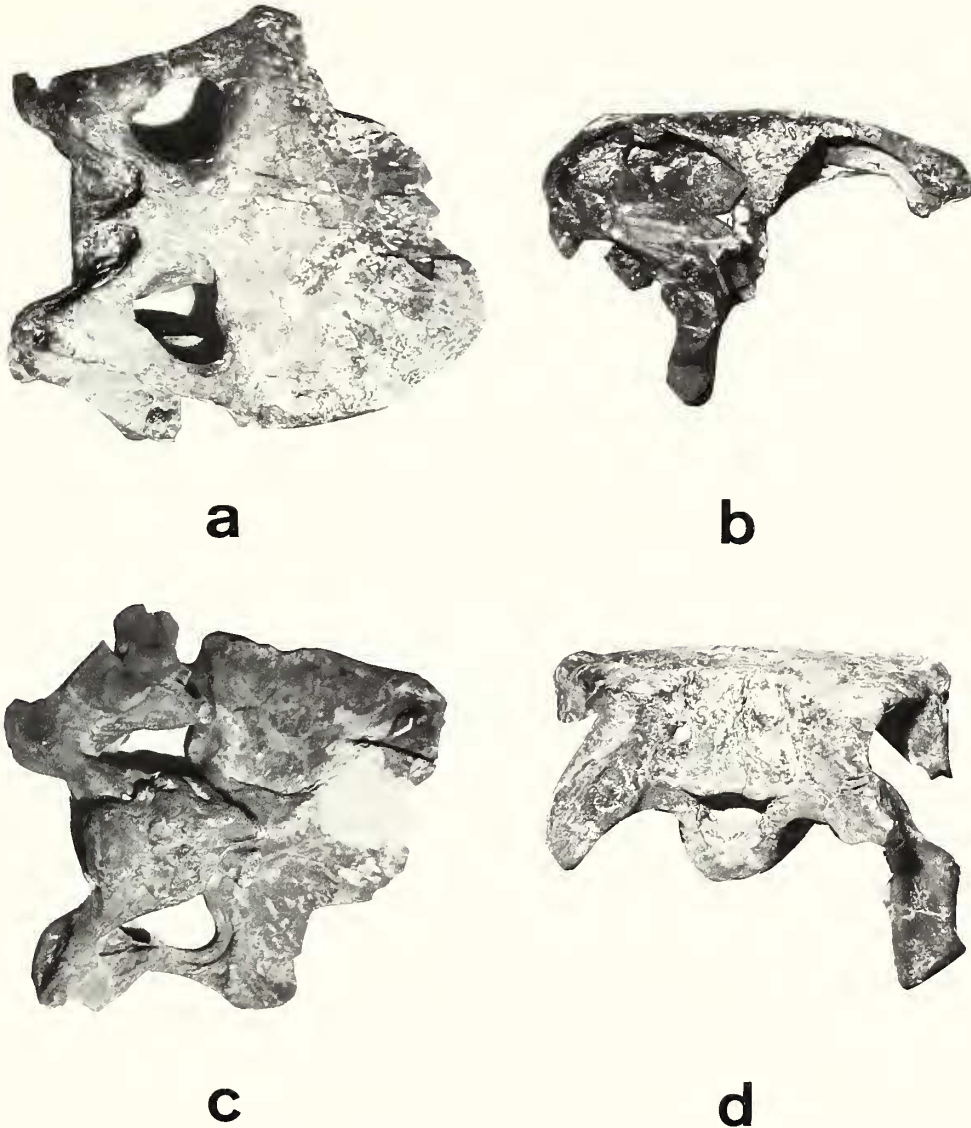


Fig. 18.—Cranium of *Stegosaurus* sp., CM 106 (not 105 as chalked on paroccipital process); a) dorsal view; b) right lateral view; c) palatal view; d) posterior view.

- 21758 Femora, right tibia and astragalus (DNM 232).
 33919 Right femur (cast).
 21773 Calcaneum (DNM 120/G).
 10003 Dermal plate (DNM 39/60), transferred.
 33942 Dermal spike, three caudals, and end of ilium (DNM 39/60Ca).

Stegosaurus sp.

- 106 Cranium and right ramus of mandible from the Morrison Formation at Quarry D, Sheep Creek, Albany County, Wyoming. (The

bones are incorrectly labelled CM 105, which is that of a Cretaceous hadrosaurid.)

Collected by Peterson and Gilmore, 1900

- 88 Partial skeleton consisting of three dorsals, sacrum, one caudal, scapulae, one coracoid, ilia, pubes, ischia, femora, dermal plate, and ?ungual. Same data as the above. The femora are the only parts which remain in Pittsburgh, the pelvic bones etc. were transferred to the Royal Ontario Museum where they form part of a composite mount; a caudal

- went to the University of Michigan (V 16779).
Collected by Wortman et al., 1899 and by Peterson and Gilmore, 1900
- 579 Three vertebrae. Same data as above.
Collected by Peterson and Gilmore, 1900
- 580 Two vertebrae. Same data as above.
Collected by Peterson and Gilmore, 1900
- 598 Spine of vertebra. Same data as above.
Collected by Peterson and Gilmore, 1900
- 599 Dorsal centrum. Same data as above.
Collected by Peterson and Gilmore, 1900
- 600 Left radius (juvenile). Same data as above.
Collected by Peterson and Gilmore, 1900
- 36700 Right radius from the Morrison Formation at Quarry O, Freezeout Hills, Carbon County, Wyoming.
Collected by Gilmore, 1902
- 597 Several vertebrae from the Morrison Formation at Quarry E, Sheep Creek, Albany County, Wyoming.
Collected by Gilmore, 1901
- 557 Femora, left scapula from the Morrison Formation at one of the Sheep Creek quarries, Albany County, Wyoming.
Collected by Peterson and Gilmore, 1900
- 21762 Scapula found at Quarry G, Sheep Creek, Albany County, Wyoming.
Collected by Peterson and Gilmore, 1900
- 21737 One dorsal, three caudals, right scapula–coracoid–humerus. These bones were formerly catalogued as part of 1255 and are from the Morrison Formation at Quarry N, Freezeout Hills, Carbon County, Wyoming.
Collected by Gilmore, 1902
- 36696 Femora, right scapula. Same data as above.
Collected by Gilmore, 1902
- 36697 Two vertebrae. Same data as above.
Collected by Gilmore, 1902
- 36698 Vertebra. Same data as above.
Collected by Gilmore, 1903
- 581 Small dermal plate collected in the Morrison Formation at either Quarry C or E, Sheep Creek, Albany County, Wyoming.
Collected by Gilmore, 1901
- 596 Incomplete right humerus and fragment of limb bone perhaps belonging to *Stegosaurus* from Quarry J, Sheep Creek, Albany County, Wyoming.
Collected by Gilmore, 1901

SUBORDER ANKYLOSAURIA

FAMILY NODOSAURIDAE

Genus *Struthiosaurus* Bunzel, 1871

Syn.: *Crataeomus* Seeley, 1881.

This genus is customarily included in the ill-defined family Acanthopholidae. It is here referred to the Nodosauridae on the authority of a recent study of the group by Coombs (Columbia University Ph.D. thesis, 1971).

Struthiosaurus austriacus Bunzel, 1871

Syn.: *Crataeomus pawlowitschii* Seeley, 1881.

Crataeomus lepidophorus Seeley, 1881.

The following casts are all from the Gosau Formation of Neue Welt, near Wiener Neustadt, Austria, and were collected by Pawlowitsch for Suess over a period from the late 1860s and 1870s. The

originals are in the Geological Museum of the University of Vienna. Nopcsa referred them all to this species—*Geol. Hungarica Ser. Palaeont.* (1929), 4:32–34.

972 Cast of cranium. The original, which is the type specimen, was described by Bunzel—*Abh. Geol. Reichsanst. Vienna* (1871), 5:11–12, Pl. 5, Figs. 1–6; and Seeley—*Quart. J. Geol. Soc. London* (1881), 37:628, Pl. 17, Figs. 5–6.

970 Cast of right dentary, described by Seeley—*Quart. J. Geol. Soc. London* (1881), 37:638, Pl. 27, Figs. 9–10 as *Crataeomus*—and by Nopcsa—*Geol. Hungarica Ser. Palaeont.* (1929), 4:35, Figs. 4, 6.

974 Cast of dorsal vertebra, described and figured by Bunzel—*Abh. Geol. Reichsanst.*

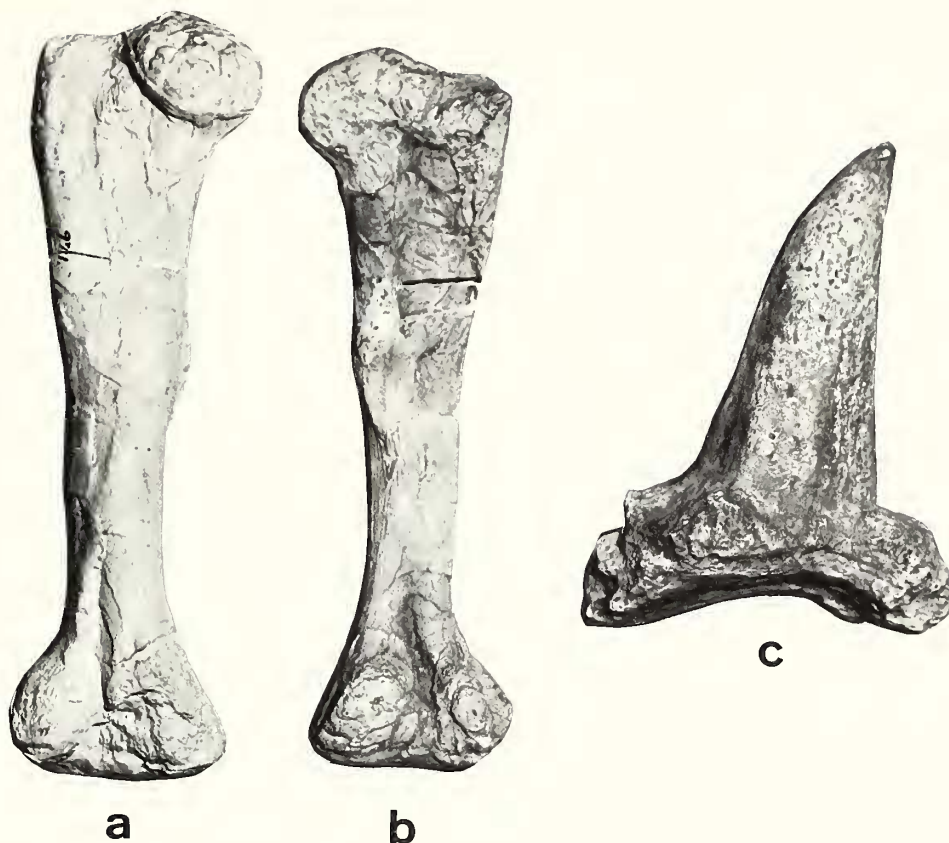


Fig. 19.—Casts of *Struthiosaurus austriacus*; a, b) anterior and posterior views of right femur, CM 971; c) dermal spine, CM 967.

- Vienna (1871), 5:2-3, Pl. 6, Figs. 1-3 and Pl. 7, Fig. 24—and by Seeley—*Quart. J. Geol. Soc. London* (1881), 37:644, Pl. 30, Fig. 3 where it is made a cotype of *C. pawlowitschii*.
- 976 Cast of a dorsal vertebra, described and figured by Bunzel as a crocodilian—*Abh. Geol. Reichsanst. Vienna* (1871), 5:3-4, Pl. 1, Figs. 24-26—and by Seeley—*Quart. J. Geol. Soc. London* (1881), 37:669-670, Pl. 30, Fig. 5, as a cotype of *C. pawlowitschii*.
- 968 Cast of a caudal, described and figured by Bunzel—*Abh. Geol. Reichsanst. Vienna* (1871), 5:4, Pl. 2, Figs. 4-6—and by Seeley—*Quart. J. Geol. Soc. London* (1881), 37:646-647, Pl. 30, Fig. 4, as a cotype of *C. pawlowitschii*.
- 971 Cast of a right femur, described and figured by Seeley as a cotype of *C. lepidophorus*—*Quart. J. Geol. Soc. London* (1881), 37:664-666, Pl. 31, Fig. 5.
- 967 Cast of a dermal spine superficially resembling a ceratopsian horn-core referred by Seeley to *Crataeomus*—*Quart. J. Geol. Soc. London* (1881), 37:650-651, Pl. 28, Fig. 4. Marsh, who first synonymized *Crataeomus* with *Struthiosaurus*, remarked on the resemblance of this specimen to a horn-core of *Ceratops*, and later referred *Struthiosaurus* to the Ceratopsidae. However, Hatcher followed by all subsequent authors has rejected this suggestion.
- 964 Cast of a shorter, stouter scute, figured by Seeley—*Quart. J. Geol. Soc. London* (1881), 37: Pl. 30, Fig. 2, as *Crataeomus*.
- 966 Cast of a dermal scute.
- 975 Cast of a dermal shield, referred to *Crataeomus* by Seeley—*Quart. J. Geol. Soc. London* (1881), 37:651, Pl. 28, Fig. 2.
- 969 Cast of a dermal bone, figured by Seeley—*Quart. J. Geol. Soc. London* (1881), 37: Pl. 28, Fig. 3.

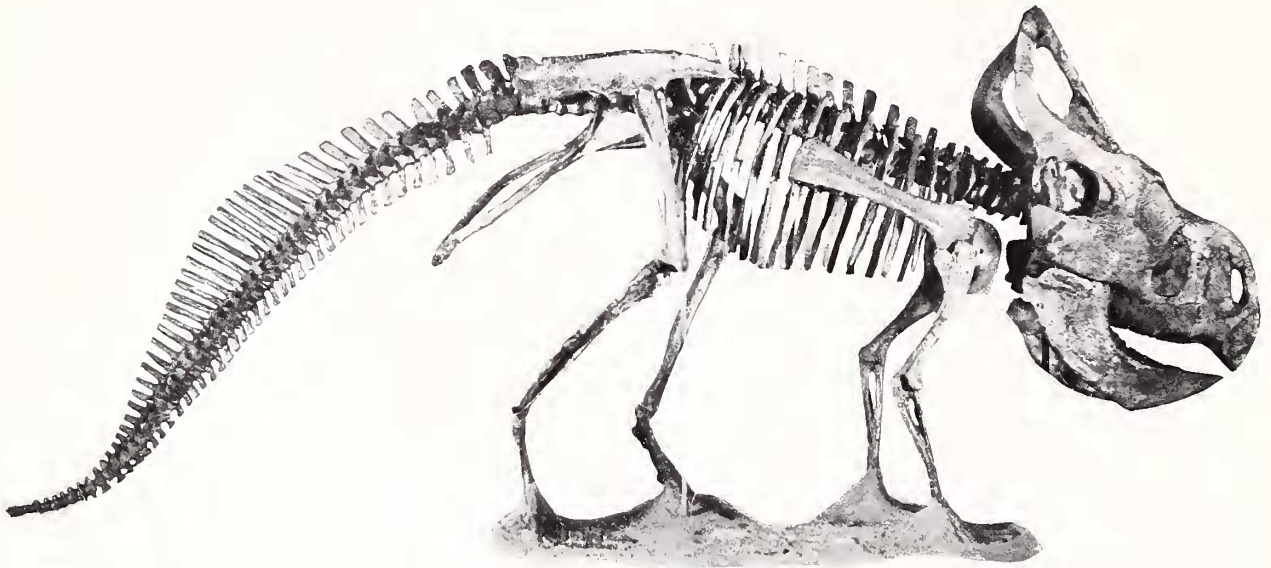


Fig. 20.—Skeleton of *Protoceratops andrewsi*, CM 9185.

973 Cast of an incomplete bone identified by Nopcsa as an ilium of *Struthiosaurus*; Seeley described it as a costal plate of *Pleuropeltus suessii*—Quart. J. Geol. Soc. London (1881), 37:691, Pl. 30, Fig. 15.

ANKYLOSAURIA, INDETERMINATE

33975 Cast of a scute. The original in the British Museum (BM R 1656) was collected in the Wealden of Brook, Isle of Wight. It was compared to *Ceratops* and *Crataeomus* by

Lydekker—Quart. J. Geol. Soc. London (1890b), 46:185–186, and again in Catalogue of the fossil Reptilia and Amphibia in the British Museum (Natural History) (1890a), Part 4:256.

591 Vertebra from the Judith River Formation near Havre, Montana.

Collected by Douglass, 1902

1609 ?Dermal plate from the Lance Formation, Lance Creek, Niobrara County, Wyoming.

Collected by Utterback, 1905

SUBORDER CERATOPSIA

FAMILY PROTOCERATOPSIDAE

Genus *Protoceratops* Granger and Gregory, 1923

Protoceratops andrewsi Granger and Gregory, 1923

9185 Skull and skeleton, obtained from the American Museum of Natural History (AMNH 6471). It was collected in the Djadochta Formation at Shabarakh Usu (now known as Bain Dzak), Mongolian People's Republic. Many parts were figured by Brown and Schlaikjer—Ann. New York Acad. Sci. (1940), 40; mandible, 198, Fig. 18c, 204, Fig. 20b, 209, Fig. 21a; scapula–coracoid, 229,

Fig. 26b; humerus, 232, Fig. 27b; radius, 233, Fig. 28c; ulna, 233, Fig. 28a; ilium, 237, Fig. 30a; femur, 241, Fig. 32a. Pictured by Kay—Carnegie Mag. (1946), 19:241.

Collected by American Expedition, 1925

9186 Hyoids from the above skeleton. It was described and figured by Colbert—Amer. Mus. Nov. (1945), 1301:5–9, Figs. 3–4.

11390 Cast of nest of six eggs. Same data as the above.

23169 Egg shell fragments. Same data as the above.

FAMILY CERATOPSIDAE

Genus *Centrosaurus* Lambe, 1904*Centrosaurus apertus* Lambe, 1904

- 11374 Skull obtained from the Geological Survey of Canada in 1925, and later transferred to Museo de La Plata, where it is on exhibition. It came from the Oldman Formation on the south side of the west branch of Little Sandhill Creek, Red Deer River area, Alberta. It was mentioned by Lull—Mem. Peabody Mus. (1933), 3:3, 10, and is no. 42 in Sternberg's list of the Steeveville Map.

Collected by C. M. Sternberg, 1919

Genus *Triceratops* Marsh, 1889*Triceratops brevicornus* Hatcher, 1905

- 1219 Skull from the Lance Formation on Hell Creek, Montana, which is mounted and was placed on exhibition in 1905. It was pictured in Holland—Carnegie Mus. Ann. Rept. (1905), p. 94—and was mentioned by Lull in Hatcher, Marsh, and Lull—Monogr. U.S. Geol. Surv. (1907), 49:182; and in Mem. Peabody Mus. (1933), 3:3, 14, and described 119.

Collected by Utterback, 1904

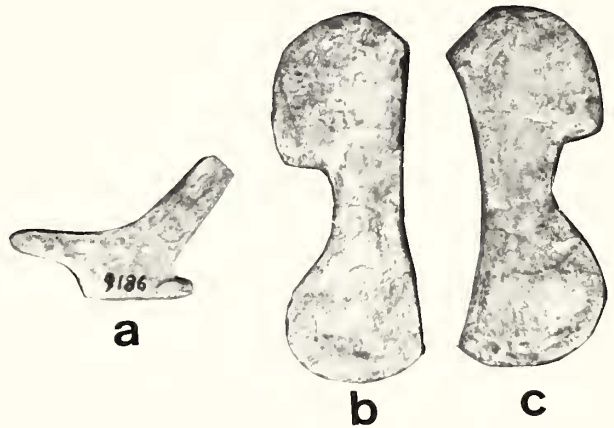


Fig. 21.—Hyoid bones of *Protoceratops andrewsi*, CM 9186; a) first ceratobranchial, external view; b, c) second ceratobranchials, dorsal view.

Triceratops sp.

- 30744 Both rami of the mandible from the Lance Formation on Sheep Mountain, Carter County, Montana.

Collected by Kay, 1938



Fig. 22.—Skull and mandible of *Triceratops brevicornus*, CM 1219, right lateral view.

- 30746 Teeth from the same horizon and locality as the above.
Collected by Kay, 1938
- 998 Partial skeleton consisting of fragments of the skull, 14 vertebrae, ribs, right scapula, right coracoid, right humerus, left ulna, part of femur, etc., from the Lance Formation on Snyder Creek, Montana.
Collected by Peterson, 1902
- 1070 Nasal horn. Same data as above.
Collected by Peterson, 1902
- 249 Nasal horn from the Lance Formation on Lance Creek.
Collected by Hatcher, 1900
- 1619 Two horn cores from the Lance Formation on Lance Creek, Niobrara County, Wyoming.
Collected by Utterback, 1906
- 1651 Two horn cores from the Lance Formation on Hell Creek, Montana.
Collected by Utterback, 1906
- 1618 Rostral bone, left squamosal, both rami of mandible, half dozen vertebrae, sacrum, right scapula, coracoids, left humerus, radius, right ilium, pubes, ischia, left femur, right tibia, etc., from the Lance Formation of the C. A. Sheldon Ranch, Niobrara County, Wyoming.
Collected by Utterback, 1906–1907
- The following specimens were all collected by Hatcher from the Lance Formation on Lance Creek, Niobrara County, Wyoming, in 1900.
- 247 Cervical.
248 Cervical.
253 Vertebra.
241 Dorsal centrum.
242 Metapodial.
255 Phalanx.
257 Phalanx.
- Ceratopsidae, indeterminate**
- 11377 Left humerus from the Oldman Formation near Steveville, Red Deer River area, Alberta. It was obtained from the Geological Survey of Canada in 1925.
Collected by C. Sternberg
- 12103 Right tibia from the Lance Formation, Sheep Mountain, Carter County, Montana.
Collected by Kay, 1937
- 38345 Tooth from the Lance Formation, Hell Creek, Garfield County, Montana.
Collected by Silberling, 1904

DINOSAURS, INCERTAE SEDIS

The following specimens from Dinosaur National Monument are so incomplete as to make their identifications difficult or impossible, but they are probably dinosaurian. They were collected by Douglass and his assistants between 1909 and 1922.

- 33915 Small centrum associated with *Allosaurus* CM 11843.
- 3393 Fragments (DNM 6).
- 33906 Chevron (DNM 47/2).
- 33911 Long slender bone (with DNM 130).
- 3385 Caudal (DNM 185).
- 33910 Phalanx (DNM 79).
- 33913 Small caudal (with DNM 39/65).
- 33943 Juvenile right ulna (DNM 39/60?).
- 36688 Foot bone from Quarry N, Freezeout Hills, Carbon County, Wyoming, in the Morrison Formation.
Collected by Gilmore, 1902
- 36681 Strange bone. Same data as above.
- 1075 Part of mandible, caudals, etc. from the Judith River Formation of Mud Creek, Fergus County, Montana.
Collected by Utterback, 1903
- 38330 Metatarsal from the Lance Formation of Sheep Mountain, Carter County, Montana.
Collected by Kay, 1938
- Egg shell fragments from Aix-en-Provence, France. They may be dinosaurian (perhaps belong to *Hypselosaurus priscus*).

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APPENDIX 1
Dinosaur Specimens Listed by Catalogue Number

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|---------------------------------|---|----------|-------------|------------|--------------|--|----------------------|
| 53 | <i>Compsognathus longipes</i> | Cast of virtually complete skeleton | 414 | — | — | Kimmeridgian | Kelheim, Solnhofen, Bavaria | Oberndorfer |
| 82 | <i>Allosaurus fragilis</i> | Incomplete caudal, rib fragment | 959 | — | — | Morrison | Carbon County, Wyoming | Holland |
| 83 | <i>Apatosaurus</i> sp. | Proximal end of femur | 1004 | — | — | Morrison | Carbon County, Wyoming | W. H. Reed |
| 84 | <i>Diplodocus carnegii</i> | Partial skeleton | 1246 | pk. 14-57 | — | Morrison | Quarry D(3), Sheep Creek, Albany County, Wyoming | Wortman et al. |
| 85 | <i>Apatosaurus</i> sp. | Five ribs, right pubis, ischium and hind limb | 1246 | — | DB | Morrison | Quarry 1, Dyer Ranch, Carbon County, Wyoming | Wortman et al. |
| 86 | <i>Diplodocus</i> sp. | Right femur (now at Utah Museum, Vernal, Utah) | 1246 | — | DD | Morrison | Quarry 2, Dyer Ranch, Carbon County, Wyoming | Wortman et al. |
| 87 | <i>Apatosaurus excelsus</i> | Partial skeleton (one dorsal at University of Michigan) | 1246 | pk. 101-134 | UB | Morrison | Quarry 4, Sheep Creek, Albany County, Wyoming | Wortman et al. |
| 88 | <i>Steposaurus</i> sp. | Partial skeleton (parts transferred to University of Michigan and Royal Ontario Museum) | 1246 | pk. 150-152 | — | Morrison | Quarry D(3), Sheep Creek, Albany County, Wyoming | Wortman et al. |
| 89 | <i>Apatosaurus excelsus</i> | Right pes | 1246 | — | — | Morrison | Quarry 5, Sheep Creek, Albany County, Wyoming | Wortman et al. |
| 94 | <i>Diplodocus carnegii</i> | Partial skeleton (femur at Houston Museum of Natural Science) | 1617 | 3-15, 32-44 | — | Morrison | Quarry D(3), Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 105 | <i>Edmontosaurus annectens</i> | Partial pelvis and sacrum, caudals, epidermis | 1629 | — | — | Lance | 2 or 3 miles north of Doegie Creek, Niobrara County, Wyoming | Hatcher |
| 106 | <i>Stegosaurus</i> sp. | Cranium, right ramus of mandible | 1617 | 39 | D74 | Morrison | Quarry D(3), Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 113 | <i>Camarasaurus</i> sp. | Left maxilla and postorbital, right dentary | 1617 | 88 | C92, C95 | Morrison | Quarry C, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 241 | <i>Triceratops</i> sp. | Dorsal centrum | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 242 | <i>Triceratops</i> sp. | Metapodial | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 243 | <i>Edmontosaurus annectens</i> | Four caudals, two phalanges | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 244 | <i>Tyrannosaurus rex</i> | Phalanx | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 245 | <i>Edmontosaurus annectens</i> | Two caudals, one phalanx | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 246 | <i>?Theselosaurus neglectus</i> | Centrum | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 247 | <i>Triceratops</i> sp. | ?cervical | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 248 | <i>Triceratops</i> sp. | ?cervical | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 249 | <i>Triceratops</i> sp. | Nasal horn | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 252 | <i>Edmontosaurus annectens</i> | Distal end left tibia and astragalus | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 253 | <i>Triceratops</i> sp. | Vertebra | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 254 | <i>Edmontosaurus annectens</i> | Left scapula | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 255 | <i>Triceratops</i> (?) sp. | Phalanx | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 257 | <i>Triceratops</i> | Phalanx | 1629 | — | — | Lance | Lance Creek, Niobrara County, Wyoming | Hatcher |
| 280 | ? | Limb fragments | 2394 | — | — | Judith River | Willow Creek, Fergus County, Montana | Siberling |

APPENDIX 1
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|----------------------------------|--|----------|-----------|---------------------------------|--------------|---|----------------------|
| 281 | Hadrosaurid | Sacrum | 2394 | — | — | Judith River | Willow Creek, Fergus County, Montana | Silberling |
| 282 | Hadrosaurid | Part of limb and foot bone | 2394 | — | — | Judith River | Willow Creek, Fergus County, Montana | Silberling |
| 305 | Hadrosaurid | Part of foot | 2394 | — | Dinosaur V | Judith River | Mud Creek, Sweetgrass County, Montana | Douglass |
| 306 | Hadrosaurid | Fragments | 2394 | — | — | Judith River | Mud Creek, Sweetgrass County, Montana | Douglass |
| 307 | <i>Diplodocus</i> sp. | 38 caudals | 2395 | 5, 8, 13 | 35-37, 90-106, 114-119, 129-135 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 312 | <i>Comarasaurus</i> sp. | 22 caudals and chevrons (other individuals changed to 36670, 36019) | 2395 | 17-18 | B77, B166 to 173 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 324 | Hadrosaurid | Proximal part of femur | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Silberling |
| 325 | Hadrosaurid | Tibia | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Silberling |
| 326 | Hadrosaurid | Right tibia | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Silberling |
| 327 | Hadrosaurid | Small tibia and part of fibula | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Silberling |
| 328 | Hadrosaurid | Right tibia | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Silberling |
| 329 | Hadrosaurid | Dorsal, metapodial, phalanx | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Silberling |
| 344 | Hadrosaurid | Both femora | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 345 | Hadrosaurid | Both femora | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 358 | <i>Teratosaurs suevicus</i> | Tooth | 1858 | — | — | Kueper | Aixheim, Germany | E. Fraas |
| 555 | <i>Apatosaurus excelsus</i> | Right radius and ulna, and probably 11 cervicals | 1617 | 35 | DQ, DR } fl-18, v, y, z | Morrison | Quarry D, Sheep Creek, Albany County, Wyoming | Peterson |
| 556 | <i>Apatosaurus excelsus</i> | Left tibia, fibula, astragalus—perhaps belonging to 555 | 1617 | 31 | D6, Dc | Morrison | Quarry D, Sheep Creek, Albany County, Wyoming | Peterson |
| 557 | <i>Stegosaurus</i> sp. | Both femora, left scapula | 1617 | — | — | Morrison | Sheep Creek, Albany County, Wyoming | Peterson |
| 563 | <i>Apatosaurus excelsus</i> | Skeleton transferred to University of Wyoming (except ischia and pubes) | 1885 | many | — | Morrison | Quarry E, Sheep Creek, Albany County, Wyoming | Gilmore |
| 566 | " <i>Elosaurus parvus</i> " | Cervical and dorsal arch, scapula, humeri, ulna, fragment of ilium, pubis, femur, fibula | 1885 | 46, 50 | E271-274, E278-279 | Morrison | Quarry E, Sheep Creek, Albany County, Wyoming | Gilmore |
| 572 | <i>Haplocanthosaurus priscus</i> | Partial skeleton | 1934 | 2-6, 8-10 | — | Morrison | Marsh-Felch Quarry 1, Garden Park, Colorado | Utterback |
| 574 | <i>Comarasaurus</i> sp. | Two dorsals, six caudals, right scapula—coracoid, left ilium, right pubis | 1885 | many | — | Morrison | Quarry C, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 577 | <i>Apatosaurus excelsus</i> | Two distal caudals | 1885 | 25 | J5 | Morrison | Quarry J, Sheep Creek, Albany County, Wyoming | Axtell |
| 578 | " <i>Astrodon</i> sp." | Cervical and dorsal centra | 1885 | 14 | C164, C165 | Morrison | Quarry C, Sheep Creek, Albany County, Wyoming | Gilmore |
| 579 | <i>Stegosaurus</i> (?) sp. | Three vertebrae | 1617 | 35 | D36, D37 | Morrison | Quarry D, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 580 | <i>Stegosaurus</i> sp. | Two vertebrae | 1617 | 35 | D45 | Morrison | Quarry D, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 581 | <i>Stegosaurus</i> sp. | Small dermal plate | 1617 | — | — | Morrison | Sheep Creek, Albany County, Wyoming | Gilmore |
| 584 | <i>Comarasaurus grandis</i> | Cervicals, dorsals, caudals, ribs, chevrons, right ilium—pubis—ischium, claw, scapula—coracoid | 1617 | — | — | Morrison | Quarry D, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 585 | " <i>Astrodon</i> " | Caudal centrum | 1885 | — | — | Morrison | Quarry E, Sheep Creek, Albany County, Wyoming | Gilmore |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|----------------------------------|---|----------|------------------|-----------------|------------------|---|----------------------|
| 591 | Ankylosaurid | Vertebra | 2132 | — | — | Judith River | near Havre, Montana | Douglass |
| 593 | <i>Ornithomimus</i> sp. | Fragmentary metapodial (may have been discarded) | 2132 | — | — | "Belly River" | near Havre, Montana | Douglass |
| 594 | Hadrosaurid | Various remains including caudal | 2132 | — | — | Upper Cretaceous | near Havre, Montana | Douglass |
| 595 | <i>Apatosaurus excelsus</i> | Caudal | 1885 | — | — | Morrison | Sheep Creek, Albany County, Wyoming | Gilmore |
| 596 | <i>Stegosaurus</i> sp. | Limb fragment, right humerus | 1885 | — | J49 | Morrison | Quarry J, Sheep Creek, Albany County, Wyoming | Gilmore |
| 597 | <i>Stegosaurus</i> sp. | Vertebrae | 1885 | — | — | Morrison | Quarry E, Sheep Creek, Albany County, Wyoming | Gilmore |
| 598 | <i>Stegosaurus</i> sp. | Vertebral spine | 1617 | — | D41 | Morrison | Quarry D, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 599 | <i>Stegosaurus</i> sp. | Dorsal centrum | 1617 | — | near D46 | Morrison | Quarry D, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 600 | <i>Stegosaurus</i> sp. | Left radius | 1617 | 31 | D46 | Morrison | Quarry D, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 662 | <i>Diplodocus hayi</i> | Skeleton transferred to Houston Museum of Natural Science except "clavicle" | 2145 | 1 to 7 and 11-21 | 1-68, 70, 72-80 | Morrison | Quarry A, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 663 | ? <i>Apatosaurus</i> sp. | Presacral vertebrae (identification uncertain) | 2395 | 1 to 3 | 1-29 | Morrison | Quarry D (?), Sheep Creek, Albany County, Wyoming | Peterson |
| 879 | <i>Haplocanthosaurus</i> | Greater part of vertebral column, left scapula, right coracoid | 1934 | 13 to 21 | — | Morrison | Marsh-Felch Quarry 1, Garden Park, Colorado | Utterback |
| 887 | <i>Diplodocus</i> sp. | Seven caudals, phalanx, chevron | 1934 | — | — | Morrison | Marsh-Felch Quarry 1, Garden Park, Colorado | Utterback |
| 936 | <i>Apatosaurus</i> sp. | Right metatarsal I | 1934 | — | — | Morrison | Marsh-Felch Quarry 1, Garden Park, Colorado | Utterback |
| 963 | Tyrannosaurid | Right lacrymal [doubly catalogued—changed to CM 9401] | 2345 | — | — | Judith River | Willow Creek, Fergus County, Montana | Hatcher |
| 964 | <i>Strathiosaurus austriacus</i> | Cast of dermal scute | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 965 | <i>Rhabdodon suessii</i> | Cast of teeth | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 966 | <i>Strathiosaurus austriacus</i> | Cast of dermal plate | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 967 | <i>Strathiosaurus austriacus</i> | Cast of horn-like scute | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 968 | <i>Strathiosaurus austriacus</i> | Cast of caudal | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 969 | <i>Strathiosaurus austriacus</i> | Cast of dermal bone | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 970 | <i>Strathiosaurus austriacus</i> | Cast of incomplete mandible | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 971 | <i>Strathiosaurus austriacus</i> | Cast of right femur | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 972 | <i>Strathiosaurus austriacus</i> | Cast of incomplete cranium | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 973 | <i>Strathiosaurus austriacus</i> | Cast of ?ilium | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 974 | <i>Strathiosaurus austriacus</i> | Cast of dorsal | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 975 | <i>Strathiosaurus austriacus</i> | Cast of dermal shield | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 976 | <i>Strathiosaurus austriacus</i> | Cast of dorsal vertebra | 2346 | — | — | Gosau | Neue Welt, Austria | Pawlowitsch |
| 998 | <i>Triceratops</i> sp. | Partial skeleton | 2129 | 43 to 48 | — | Lance | Snyder Creek, Niobrara County, Wyoming | Peterson |
| 1064 | Hadrosaurid | 12 caudals, part of ilium, fragments | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Siberling |
| 1065 | Hadrosaurid | Right humerus | 2394 | — | — | Judith River | Willow Creek, Fergus County, Montana | Utterback |
| 1066 | Hadrosaurid | Left humerus | 2394 | — | — | Judith River | Montana | Utterback |
| 1067 | Hadrosaurid | Part of right femur | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 1068 | Hadrosaurid | Part of tibia | 2394 | — | — | Judith River | Montana | Siberling |
| 1069 | Hadrosaurid | Bones of the pes | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Siberling |
| 1070 | <i>Triceratops</i> | Nasal horn | 2129 | — | — | Lance | Snyder Creek, Niobrara County, Wyoming | Peterson |

APPENDIX 1
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|------------------------------------|--|----------|----------------|---|--------------|---|----------------------|
| 1071 | <i>Hadrosaurid</i> | Partial skeleton | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 1072 | <i>Hadrosaurid</i> | Sacrum | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 1073 | <i>Hadrosaurid</i> | Part of sacrum, fragments | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Silberling |
| 1074 | <i>Hadrosaurid</i> | Right dentary and part of right maxilla, caudal, fragments | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 1075 | <i>Dinosaur</i> | Tooth, caudal (supposed to be mandibles as well) | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 1076 | <i>Hadrosaurid</i> | Nine caudals, six phalanges, two unguals | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 1077 | ? <i>Hadrosaurus</i> sp. | Partial skull | 2394 | — | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |
| 1188 | <i>Apatosaurus excelsus</i> | Sacrum, caudals, right ilium | 1617 | 75 | — | Morrison | Quarry F, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 1198 | <i>Barosaurus lentus</i> | Four cervicals (others discarded) | 5973 | 269, 296, 299 | 150B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 1200 | <i>Camarasaurus</i> sp. | Six caudal centra | 2417 | — | — | ?Morrison | Wittecombe's Ranch, Sweet Creek County, Montana | Silberling |
| 1201 | <i>Diplodocus</i> sp. | One dorsal and one caudal centrum | 2417 | 3 | — | ?Morrison | Wittecombe's Ranch, Sweet Creek County, Montana | Silberling |
| 1201 | <i>Diplodocus longus</i> | Cranium [doubly catalogued, changed to CM 26552] | 5973 | 281 | 175/A | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 1202 | <i>Hadrosaurid</i> | Jugal and part of mandible | 2417 | 3 | — | Judith River | Crawford Ranch, Sweetgrass County, Montana | Silberling |
| 1219 | <i>Triceratops brevicornis</i> | Skull without mandible | 2643 | 10 | Ceratops skull no. 3 | Lance | Hell Creek, Garfield County, Montana | Utterback |
| 1252 | <i>Camarasaurus</i> sp. | 40 caudals, chevrons | 2131 | 29, 31, 39, 40 | 178, 183, 188-9, 191, 193, 99-105, 111-119, 136-7 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 1253 | <i>Camarasaurus</i> sp. | Chevrons | 2395 | 4, 5, 8, 12 | B60-69, 75-77, 85-89 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 1254 | <i>Allosaurus fragilis</i> | Ischia, premaxilla, two teeth, two sacrals, left humerus, four metatarsals, phalanges | 2131 | 31 | — | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 1255 | <i>Camarasaurus</i> sp. | Ribs and fragments (others recatalogued) | 2131 | — | — | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 1256 | <i>Camarasaurus</i> sp. | Ribs, pubis, fragments (others recatalogued) | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 1400 | <i>Tyrannosaurus rex</i> | Incomplete skull, two dorsals, two caudals, chevrons, ribs, pubes, many incomplete bones | 2129 | 37 to 42 | — | Lance | Snyder Creek, Niobrara County, Wyoming | Peterson |
| 1609 | <i>Ankylosaurid</i> | ?Dermal plate | 3083 | 739 | — | Lance | Lance Creek, Niobrara County, Wyoming | Utterback |
| 1618 | <i>Triceratops</i> sp. | Partial skeleton | 3083 | 40 | — | Lance | Lance Creek, Niobrara County, Wyoming | Utterback |
| 1619 | <i>Triceratops</i> sp. | Two horn cores | 3343 | 40 | — | Lance | Lance Creek, Niobrara County, Wyoming | Utterback |
| 1651 | <i>Triceratops</i> sp. | Two horn cores | 2643 | 6, 9 | — | Lance | Lance Creek, Niobrara County, Wyoming | Utterback |
| 1652 | <i>Edmontosaurus</i> sp. | Ilium-pubis-ischium, fibula | 2643 | 6 | — | Lance | Hell Creek, Garfield County, Montana | Utterback |
| 1949 | <i>Dryosaurus altus</i> | Three dorsals, 28 caudals, right ilium, right femur-tibia-fibula-metatarsals | 3085 | 5, 6 | — | Morrison | Elk Mountains, Johnson County, Wyoming | Utterback |
| 2043 | ? <i>Haplocanthosaurus priscus</i> | Right tibia-fibula-astragalus | 1934 | 1 | — | Morrison | Marsh-Felch Quarry 1, Garden Park, Colorado | Utterback |

APPENDIX 1
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|--|--|----------|--|------------|------------|---|-----------|
| 2044 | <i>Apatosaurus</i> sp. | Dorsal (transferred to University of Cincinnati) | 1934 | 26 | — | Morrison | Cope Quarry, 4 Mile Creek, Garden Park, Colorado | Utterback |
| 2045 | <i>Allosaurus fragilis</i> | Femur | 1934 | 26 | — | Morrison | Wilson Creek, near Cañon City, Colorado | Utterback |
| 2046 | ? <i>Haplocanthosaurus priscus</i> | Left tibia and fibula | 1934 | 12, 15 | — | Morrison | Marsh-Felch Quarry 1, Garden Park, Colorado | Utterback |
| 2098 | <i>Diplodocus</i> sp. | Right femur (lower half)—tibia—fibula—pes | 3085 | 1, 2, 4 | — | Morrison | Elk Mountains, Johnson County, Wyoming | Utterback |
| 2099 | <i>Diplodocus</i> sp. | Left tibia (part) and pes | 3085 | 3 | — | Morrison | Elk Mountains, Johnson County, Wyoming | Utterback |
| 2789 | ? <i>Camarasaurus</i> sp. | Caudal | 7877 | — | — | ?Morrison | Panhandle of Texas | Hammon |
| 2905 | <i>Apatosaurus</i> and <i>Diplodocus</i> | 11 caudals and right pes of two animals [doubly catalogued, changed to CM 30766 and 30767] | 5973 | 303 | 175/G | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 2969 | <i>Diplodocus</i> and <i>Stegosaurus</i> | Various [doubly catalogued, changed to CM 21774, 30763, 30764] | 5973 | 367 | 285 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3018 | <i>Apatosaurus louisae</i> | Greater part of skeleton lacking(?) | 4256 | many | 1, 25 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3180 | <i>Pachycephalosaurus wyomingensis</i> | Skull (see CM 11162) | 4791 | — | — | ?Lance | Uintah County, Utah | Utterback |
| 3319 | Hadrosaurid | Parieto-frontal | — | — | — | — | Lance Creek?, Wyoming? | Utterback |
| 3363 | Hadrosaurid | Right maxilla and tooth | 2394 | 1 | Dinosaur X | Fish Creek | Between Fish Creek and Musselshell Creek, Montana | Douglass |
| 3377 | <i>Diplodocus</i> sp. | Incomplete right tibia with astragalus | 2153 | — | — | Fish Creek | Fish Creek, Montana | Douglass |
| 3378 | <i>Apatosaurus</i> sp. | Left femur | 4791 | — | 172 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3378 | <i>Apatosaurus</i> sp. | Vertebral column complete except anterior cervicals, ?left humerus | 4791 | 221-2, 227-9, 231-2, 234-5, 237-8, 242-5, 248, 250 | 160 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3379 | <i>Camarasaurus</i> sp. | 47 articulated caudals (transferred to National Museum of Natural History, Washington, D.C.) | 4791 | 191 to 194 | 130 (part) | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3381 | <i>Camarasaurus</i> sp. | Large tooth | 4256 | 1 | 3 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3382 | <i>Allosaurus fragilis</i> | Tooth | 4256 | 6 | 14 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3383 | ? <i>Allosaurus</i> sp. | Vertebrae | 4791 | 200 | 187 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3384 | <i>Apatosaurus</i> sp. | Four caudals | 4791 | 1 | 7 (part) | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3385 | Dinosaur | Caudal | 4791 | 200 | 185 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3387 | <i>Allosaurus fragilis</i> | Teeth and fragments | 4256 | 1 | 2 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3388 | <i>Diplodocus</i> sp. | Two dorsal centra | 4256 | 6 | 15 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3389 | <i>Diplodocus</i> sp. | Right ilium | 4256 | 1 | 4 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3390 | <i>Apatosaurus</i> sp. | Many dorsals, sacrum, 12 caudals, ribs, left ilium—pubis—ischium | 4256 | 50, 74 | 24 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3391 | <i>Apatosaurus</i> sp. | Six cervicals (probably belonging to CM 3390) | 4256 | 22 | 37 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3392 | <i>Dryosaurus altus</i> | Skull and skeleton | 4256 | 12, 21, 81 | 26 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX 1
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|--|---|----------|--------------|------------------|--------------|---|------------------|
| 3393 | Dinosaur | Fragments | 4256 | — | 6 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 3395 | <i>Diplodocus</i> sp. | Caudal | 5246 | — | — | Morrison | 50 miles south of Grand Junction, Colorado | McMillen |
| 3452 | <i>Diplodocus longus</i> | Skull, mandible, cervicals 1-6 | 5314 | 266 | 220 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 8942 | <i>Camarasaurus "annae"</i> | Two dorsals and other material probably associated | 4791 | 268 | 1301 and 1302 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 9000 | <i>Diplodocus</i> and <i>Stegosaurus</i> | Various [doubly catalogued, recatalogued CM 21759, 21760, 21763, 30762, 30773] | 7195 | 441 | 345/A | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 9185 | <i>Protoceratops andrewsi</i> | Skull and skeleton | 13498 | — | 515 (AMNH 6471) | Djadochta | Shabarakh Usu (now Bain Dzak) Mongolia | AMNH |
| 9186 | <i>Protoceratops andrewsi</i> | Hyoids belonging to above skeleton | 13498 | — | 515 (AMNH 6471) | Djadochta | Shabarakh Usu (now Bain Dzak) Mongolia | AMNH |
| 9379 | <i>Tyrannosaurus rex</i> | Brain cast of AMNH 5029 | 12863 | — | AMNH 5029 (cast) | Lance | Hell Creek, Garfield County, Montana | Brown and Kaisen |
| 9380 | <i>Tyrannosaurus rex</i> | Large part of skull and skeleton | 12863 | — | AMNH 973 | Lance | Hell Creek, Garfield County, Montana | Brown and Kaisen |
| 9401 | Tyrannosaurid | Right lachrymal | 2345 | S11 | Sh 5 | Judith River | Willow Creek, 3 miles east of Archer Ranch, Montana | Hatcher |
| 9461 | <i>Corithosaurus casuaricus</i> | Skeleton lacking skull, etc. | — | — | Qu. No. 11 | Oldman | 11 miles southeast of Steveville, Alberta | L. Sternberg |
| 9900 | <i>Thescelosaurus neglectus</i> | Two left humeri | — | — | — | ?Lance | Probably Sheep Mountain, Carter County, Montana | ?Kay |
| 9970 | <i>Edmontosaurus</i> sp. | Right mandible | 11348 | — | 6/1937 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 10000 | <i>Apatosaurus</i> (? <i>louisae</i>) | Right radius-ulna-manus, left femur [doubly catalogued, changed to CM 30766] | 5973 | 295 | 175 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 10001 | <i>Stegosaurus</i> sp. | Right femur and coracoid (current location unknown) | 5973 | 297 | 197 (part) | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 10002 | <i>Allosaurus fragilis</i> | Right tibia and fibula (fibula used in mount of CM 11844) | 4791 | 251 | 165 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 10003 | <i>Stegosaurus</i> sp. | Dermal plate (transferred—location unknown) | ?7195 | ?385 | 39/60? | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 10004 | <i>Diplodocus</i> sp. | Left scapula—coracoid (bones of other individuals recatalogued 33924, 33925, 33926) | 5973 | 256 | 210/9 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 11069 | <i>Camarasaurus lentus</i> | Five posterior cervicals | 4791 | 263 | 150B/1 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 11161 | <i>Diplodocus longus</i> | Skull and mandible | 4791 | 250 | 160/0 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 11162 | <i>Apatosaurus louisae</i> | Skull without mandible (likely part of 3018 or 11990) | 4791 | 83 | 60/10 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 11253 | <i>Apatosaurus louisae</i> | Right pes (femur now at University of Cincinnati, tibia at California Academy of Science) | 4791 | 125 | 60/2 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 11255 | <i>Diplodocus longus</i> | Skull and mandible | 7195 | 409 | 351 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 11337 | <i>Camptosaurus medius</i> | Skeleton without skull | 7195 | 432, 444 | 370, 353 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 11338 | <i>Camarasaurus lentus</i> | Skull and skeleton almost complete | 7195 | 424, 431-3-7 | 333 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|--|--|--------------|---------------------|--------------------|-----------|---|-----------------|
| 11339 | <i>Apatosaurus</i> sp. | Seven dorsals | 7195 | 435 | 350/3 ^a | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 11340 | <i>Dryosaurus altus</i> | Skull and partial skeleton | 7195 | 409 | 360 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 11341 | <i>Stegosaurus unguiculatus</i> | Rear half of skeleton | 7195 | 430, 5 to 8; 444 | 350 | Morrison | Utah County, Utah | Douglass |
| 11372 | <i>Stegosaurus</i> sp. | Partial skeleton (transferred to Nebraska State Museum) | 7195 | 391 etc. | 39/60 | Morrison | Utah County, Utah | Douglass |
| 11373 | <i>Camarasaurus lentus</i> | Skull and skeleton lacking tail | 7195 | many | 301/D | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 11374 | <i>Centrosaurus apertus</i> | Skull (transferred to Musco de la Plata) | 7620 | — | GSC 39, field 109 | Oldman | Utah County, Utah | C. M. Sternberg |
| 11375 | <i>Corythosaurus casuarius</i> | Top of skull | 7630 | — | — | Oldman | Sandhill Creek, Alberta | C. M. Sternberg |
| 11376 | <i>Corythosaurus casuarius</i> | Mandible | 7620 | — | — | Oldman | Red Deer River, Alberta | C. M. Sternberg |
| 11377 | Ceratopsid | Left humerus | 7620 | — | — | Oldman | Red Deer River, Alberta | C. M. Sternberg |
| 11390 | <i>Protoceratops andrewsi</i> | Cast of six eggs | 7974 | — | — | Djadochta | Shabarakh Usu (now Bain Dzak) Mongolia | AMNH |
| 11393 | <i>Camarasaurus lentus</i> | Greater part of skeleton with skull (see CM 12020) | 7195 | many | 240, 270 (part) | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 11394 | <i>Diplodocus longus</i> | Skull (probably the same as 11255) | 7195 | — | — | Morrison | Utah County, Utah | Douglass |
| 11745 | <i>Edmontosaurus</i> sp. | Posterior two-thirds of skeleton | 8411 | — | — | Lance | Utah County, Utah | Kay |
| 11843 | ? <i>Allosaurus</i> sp. | Fragments of skull, vertebrae, ribs, left coracoid, limb parts | 7195 | — | 366 | Morrison | 15 miles south of Camp Crook, Harding County, South Dakota | Douglass |
| 11844 | <i>Allosaurus fragilis</i> | Partial skull and skeleton lacking forelimbs | 5973 | — | 202 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 11868 | <i>Allosaurus fragilis</i> | Various parts of CM 11844 now so recatalogued | 5973 | — | 202 (part) | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 11878 | ? <i>Burossaurus lentus</i> | Caudal (now at University of Michi- gan), head of tibia, head of femur | 7195 | 404 | 347 | Morrison | Utah County, Utah | Douglass |
| 11908 | <i>Plateosaurus</i> sp. | Cast of complete right pes | 9834 | — | — | Keuper | Halberstadt, Germany | — |
| 11969 | <i>Camarasaurus lentus</i> | Cranium and part of neck | 7195 | 374 | 325 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 11970 | <i>Diplodocus longus</i> | Right femur (transferred with asso- ciated skeleton CM 21763 to Denver Museum of Natural History) | 5973 | 257 | 150/13 | Morrison | Utah County, Utah | Douglass |
| 11971 | <i>Camarasaurus</i> sp. | Left femur | 4791 | 236 | 155/Fe2 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 11975 | <i>Diplodocus</i> sp. | Four caudals, right femur | 5973 | 218 | 168/A, 145/J | Morrison | Utah County, Utah | Douglass |
| 11984 | <i>Burossaurus lentus</i> | Nearly complete neck and anterior dorsals | 7195 | 446 etc. | 310 | Morrison | Utah County, Utah | Douglass |
| 11985 | <i>Stegosaurus stenops</i> | Distal end of left humerus [recatalogued CM 21765] | 7195 | 446 | 310/G | Morrison | Utah County, Utah | Douglass |
| 11990 | <i>Apatosaurus louisae</i> | Tibia (transferred with associated skeleton to Los Angeles County Museum) | 4256 4791 | 107 | 40/82 | Morrison | Utah County, Utah | Douglass |
| 11998 | <i>Apatosaurus</i> and <i>Burossaurus</i> | Caudal, left femur (now at Newark Museum), right femur (now at Royal Ontario Museum) | 5973 | 272 | 155/FA, 155/S | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 12000 | <i>Stegosaurus</i> sp. | Cranium | 7195 | 442 | 365 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|---------------------------------|--|----------|----------|---------------------|----------|---|-----------|
| 12020 | <i>Camarasaurus lentus</i> | Skull and mandible (part of CM 11393) | 5973 | 350, 372 | 240/L | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 12100 | Hadrosaurid | Epidermis, six + ribs, three chevrons, 31 caudals, pubes, left ischium | 11348 | — | — | Oldman | Fred Townsend's Ranch, Carter County, Montana | Kay |
| 12101 | Hadrosaurid | Part of jaw, four caudals, foot bones | 11348 | — | 2/1937 | Oldman | Sheep Mountain, Carter County, Montana | Kay |
| 12102 | Tyrannosaurid | Left femur | 11348 | — | 16/1937 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 12103 | Ceratopsid | Right tibia | 11348 | — | — | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 14955 | <i>Torvosaurus tanneri</i> | Cast of huge claw (original BYU 20674) | 20674 | — | — | Morrison | Moffat County, Colorado | Jensen |
| 15780 | <i>Camptosaurus medius</i> | Right femur—tibia—fibula—astragalus—metatarsal | 7195 | 408 | 315 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21702 | <i>Camarasaurus</i> sp. | Right maxilla | 7195 | 425 | 39/60a | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21703 | <i>Allosaurus fragilis</i> | Cranium, presacrals, caudals | 4256 | 8, 40 | 22 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21704 | Theropod | Skull, cervicals, dorsals (rest of skeleton transferred to Royal Ontario Museum) | 4791 | 240 | 140 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21705 | <i>Allosaurus fragilis</i> | Caudal centrum | 5973 | 264 | 193/A | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21706 | <i>Ceratopsaurus nasicornis</i> | Incomplete dentary | 1934 | 1 | — | Morrison | Marsh-Felch Quarry 1, Garden Park, Colorado | Utterback |
| 21707 | <i>Camptosaurus</i> sp. | Left tibia | 5973 | 323 | 197/11 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21708 | <i>Apatosaurus</i> sp. | Left forelimb and manus | 4256 | 4, 72 | 12 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21709 | <i>Stegosaurus</i> sp. | Left femur | 7195 | 384 | 319 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21710 | <i>Diplodocus longus</i> | Left femur | 7195 | 384 | 334 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21711 | <i>Stegosaurus</i> sp. | Sacrum, two caudals | 4256 | 43 | 39/17 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21712 | <i>Camarasaurus</i> sp. | 13 caudals | 4256 | 56 | 45 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21713 | <i>Allosaurus fragilis</i> | Left ischium, metatarsal | 5973 | 387 | 302/1 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21714 | <i>Diplodocus longus</i> | Caudal | 4791 | 164 | 39/65H | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21715 | <i>Apatosaurus louisae</i> | Left humerus—radius—ulna | 4256 | 20, 32 | 399, 10, 11 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21716 | <i>Camarasaurus</i> sp. | Five caudals | 4791 | 181 | marked 60—incorrect | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21717 | <i>Apatosaurus louisae</i> | Right ulna | 4791 | 96 | 39/53 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21718 | <i>Diplodocus longus</i> | Dentition | 4791 | 183 | 130/CA | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21719 | ? <i>Barosaurus lentus</i> | Right humerus | 5973 | 271 | 155/Hum 2 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21720 | <i>Camarasaurus</i> sp. | Cast of right metacarpals I–V (original is AMNH 965) | — | — | — | Morrison | Bone Cabin Quarry, north of Medicine Bow, Wyoming | Kaisen |

APPENDIX 1
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|----------------------------|--|----------|-----------|--------------------------------------|-----------|--|-------------------------|
| 21721 | <i>Diplodocus</i> sp. | Right forelimb | 5973 | 327 | 228 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21722 | <i>Camptosaurus medius</i> | Right femur | 5973 | 264 | 217a | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21723 | <i>Camptosaurus medius</i> | Right femur | 4791 | 142 | 102 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21724 | <i>Camptosaurus medius</i> | Upper end left femur | 5973 | 266 | 210/12 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21725 | <i>Camptosaurus medius</i> | Left metatarsals II-III-IV | 7195 | 427 | 358 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21726 | <i>Allosaurus fragilis</i> | Left femur | 7195? | 387 | 39/60L | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21727 | <i>Stegosaurus</i> sp. | Dorsal, right scapula | 5973 | 348 | 240/F | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21728 | <i>Diplodocus</i> sp. | Sacrum, left ilium, ischia | 4791 | 182 | 89 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21729 | <i>Apatosaurus</i> sp. | Right hind limb | 4791 | 236 | 171 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21730 | <i>Camarasaurus</i> sp. | Left fibula and pes | 2131 | 4, 27, 28 | N71-72 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 21731 | <i>Apatosaurus</i> sp. | Caudal | 4256 | — | — | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21732 | <i>Camarasaurus</i> sp. | Jaws, skull fragments | 5973 | 326 | 201/C, D, E, F | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21733 | <i>Camarasaurus</i> sp. | Dorsals, sacrum, right ilium | 7195 | 399 | 344 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21734 | <i>Camarasaurus</i> sp. | Right pubis, left ischium, dorsal (femur transferred to Berkeley) | 2131 | 2 | K2, K7, K10 | Morrison | Quarry K, Sheep Creek, Albany County, Wyoming | Gilmore |
| 21735 | <i>Camarasaurus</i> sp. | Left ilium | 5973 | 211 | 147 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21736 | <i>Allosaurus fragilis</i> | Right scapula—coracoid | — | — | — | ?Morrison | ?Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21737 | <i>Stegosaurus</i> sp. | Dorsal, three caudals, right scapula— coracoid—humerus | 2131 | 20, 21 | N18(48), N45(35), N48-9, N53, N68 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 21738 | <i>Diplodocus</i> sp. | Left radius and ulna | 5973 | 315 | 205/C | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21739 | <i>Stegosaurus</i> sp. | Right humerus | 5973 | 349 | 240 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21740 | <i>Apatosaurus</i> sp. | Seven caudals, pubis, right ischium, right femur, right tibia | 1617 | 44 to 47 | A4 to A13 | Morrison | Quarry A, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 21741 | <i>Diplodocus</i> sp. | Right astragalus (right femur now at North Carolina Museum, right tibia—fibula at Royal Ontario Museum) | 4791 | 208 | 60/16 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21742 | <i>Camarasaurus</i> sp. | Centrum | 2131 | 8 | L7 | Morrison | Quarry L, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 21743 | <i>Camarasaurus</i> sp. | Arch | 2131 | 8 | L3 | Morrison | Quarry L, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 21744 | ? <i>Barosaurus lentus</i> | Right forelimb and manus | 7195 | 382 | 312 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21745 | <i>Diplodocus</i> sp. | Vertebrae, left ilium, right femur | 4791 | 218, 219 | 145 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21746 | <i>Apatosaurus</i> sp. | Left ilium (used to supplement mount of CM 11338) | 4791 | 110 | 39/50 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|-----------------------------|--|----------|----------|-------------------------------|----------|--|-------------------------|
| 21747 | <i>Diplodocus</i> sp. | Pubes | 5973 | 328 | 231 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21748 | <i>Apatosaurus excelsus</i> | Left astragalus | 2131 | 3 | — | Morrison | Bone Cabin Quarry, north of Medicine Bow, Wyoming | Gilmore |
| 21749 | <i>Diplodocus</i> sp. | Left astragalus | 2131 | 3 | — | Morrison | Medicine Bow, Wyoming | Gilmore |
| 21750 | ? <i>Comarasaurus</i> sp. | Left femur | 4791 | 236 | 155/Fe2 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21751 | <i>Comarasaurus</i> sp. | Right premaxilla and mandible (both rami), many teeth | 5314 | 262 | 201/A, B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21752 | <i>Apatosaurus</i> sp. | Two dorsals, sacrum, pelvis, fore and hind limbs | 4791 | 175 | 120/M, N | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21753 | <i>Diplodocus</i> sp. | Left femur, head of right tibia | 4791 | 203 | 151/A | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21754 | <i>Diplodocus</i> sp. | Left femur | 5973 | 273 | 219 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21755 | <i>Stegosaurus</i> sp. | Left femur | 4791 | 84 | 59 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21756 | <i>Apatosaurus</i> sp. | Left femur | 5973 | 347 | 238/2 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21757 | <i>Allosaurus fragilis</i> | Three caudals | 5973 | 264 | — | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21758 | <i>Stegosaurus</i> sp. | Femora, right tibia—astragalus | 5973 | 319, 325 | 232 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21759 | <i>Comarasaurus</i> sp. | Left femur (formerly part of CM 9000) | 4791 | 230 | 167 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21760 | <i>Comarasaurus grandis</i> | Casts of sacrum, all girdle and limb bones of left side, pes | 3723 | — | YPM 1900, 1901, 1903, 1905 | Morrison | YPM Quarry 1, Como Bluff, Wyoming | W. H. Reed et al. |
| 21761 | <i>Stegosaurus</i> sp. | Right humerus (removed from CM 3378) | — | — | 739 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21762 | <i>Stegosaurus</i> sp. | Right scapula | 1617 | 78 | — | Morrison | Quarry G, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 21763 | <i>Diplodocus</i> sp. | Right fibula and astragalus (rest of skeleton at Denver Museum of Natural History; see CM 11970) | 5973 | 278 | 150/11 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21764 | " <i>Comarasaurus</i> " | Models of right and left metacarpals for use in <i>Diplodocus</i> mount | — | — | — | Morrison | Modelled from AMNH specimens | — |
| 21765 | <i>Stegosaurus stenops</i> | Left forelimb (removed from CM 11984-11985) | 7195 | 446 | 310/G | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21766 | <i>Stegosaurus</i> sp. | Caudal (removed from CM 3378) | — | — | — | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21767 | <i>Stegosaurus</i> sp. | Distal end of left humerus (removed from CM 11878) | 7195 | 404 | 348/B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21768 | <i>Stegosaurus</i> sp. | Right scapula—coracoid | 4791 | 182 | 120/Ra | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21769 | <i>Allosaurus fragilis</i> | Distal half of right femur | 4791 | 176 | 120/N | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21770 | <i>Stegosaurus</i> sp. | Right femur, right scapula—coracoid, rib, three caudals, dermal spike | 5973 | 299 | 197/33 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21771 | <i>Diplodocus</i> sp. | Right femur (transferred to South African Museum) | 4791 | 183 | 60/14 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 21772 | <i>Comarasaurus</i> sp. | Left femur, ?associated right coracoid and dorsal centrum | 7195 | 435 | 350/3? | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|---------------------------------|---|------------------|----------|---|-----------|--|-------------------------|
| 21773 | <i>Stegosaurus</i> sp. | Calcaneum | 4791 | 172 | 120/G | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21774 | <i>Stegosaurus</i> sp. | Dorsals, caudals, right scapula- coracoid (formerly part of CM 2969) and one right fibula | 5973 | 367 | 285/H & C | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21775 | <i>Camarasaurus</i> sp. | Scapulae, coracoids, sternal, left humerus—radius—ulna, ribs | 2395 | 14 | B136, B146 to 148, B151, B180, B198-199 231/A | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 21776 | <i>Stegosaurus</i> sp. | Caudal | 5973 | 328 | 231/A | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21777 | <i>Camarasaurus</i> sp. | Left tibia—astragalus—metatarsal I—ungual | 5973 | 362, 370 | 270, part | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21778 | <i>Camptosaurus</i> sp. | Distal end of ischium | 4791 | 187 | in 130/D | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21779 | ?Ankylosaurid | ?Piece of dermal armor or skull fragment | — | — | — | Unknown | Unknown | Unknown |
| 21780 | <i>Apatosaurus</i> sp. | Left metacarpals I and ?IV, ?radius | 5973 | 293 | 197/66, 197/71, 197/38 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21781 | <i>Camarasaurus</i> sp. | Left humerus | 4791 | 85 | 45/21 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21782 | <i>Apatosaurus</i> sp. | Left ulna, two foot bones | 2312 | 2 | O-4 | Morrison | Quarry O, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 21783 | <i>Camarasaurus</i> sp. | Right tibia | 5973 | 302 | 150/45 in block 202/F | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21784 | <i>Apatosaurus</i> sp. | Right femur | 5973 | 264 | — | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 21785 | <i>Apatosaurus</i> sp. | 10 caudals, left femur, metacarpal | 1617 | 51 | E-105, E-106 | Morrison | Quarry E, Sheep Creek, Albany County, Wyoming | Peterson |
| 21786 | <i>Dryosaurus altus</i> | Partial skeleton | 17486 | — | 3/1955 | Morrison | Jura 3, Lily Park, Moffat County, Colorado | Kay and Lloyd Kay |
| 21787 | <i>Thescelosaurus neglectus</i> | Limb and pelvic bones of several individuals | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Lloyd Kay |
| 21788 | <i>Diplodocus</i> sp. | Left femur | 8011 | — | — | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 23169 | <i>Protoceratops andrewsi</i> | Egg shell pieces | 13498 | — | — | Djadochta | Shabarakh Usu (now Bain Dzak), Mongolia | AMNH |
| 26258 | <i>Edmontosaurus regalis</i> | Skull and greater part of skeleton | 26805 | — | ROM 193-4 | Edmonton | Red Deer River, Alberta | L. Sternberg |
| 26552 | <i>Diplodocus longus</i> | Cranium | 5973 | 281 | 175/A | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 28846 | <i>Camarasaurus</i> sp. | Right pubis, ischia | 2395 | 5, 6 | B30, B31, B43 | Morrison | Utah County, Utah | Utterback |
| 28847 | <i>Camarasaurus</i> sp. | Right ischium | 2395 | 6 | B41 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 28848 | <i>Apatosaurus</i> sp. | Distal end of ischium | 2395 | — | B223 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 28849 | <i>Apatosaurus</i> sp. | Right humerus | 2395 | 12 | B72 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 30743 | <i>Camarasaurus lentus</i> | Cast of skull and mandible of USNM 13786 | original 7195 | 418 | — | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 30744 | <i>Triceratops</i> sp. | Mandible (both rami) | 11767 | — | — | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 30745 | <i>Edmontosaurus</i> sp. | Mandible, three dorsal centra, humeri, right ulna, three pubes, metatarsal, ungual | 11767 | — | — | Lance | Sheep Mountain, Carter County, Montana | Kay |

APPENDIX 1
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|-------------------------------------|--|----------|---------------|------------|----------|--|----------------|
| 30746 | <i>Triceratops</i> sp. | A large number of teeth | 11767 | — | — | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 30748 | ? <i>Stenonychosaurus inequalis</i> | ?right femur, left femur, tibia | 11767 | — | — | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 30749 | Tyrannosaurid | 13 teeth | 11767 | — | — | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 30760 | <i>Camarasaurus</i> sp. | Two and one-half dorsals | 4791 | 128 | with 40 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30761 | <i>Apatosaurus</i> sp. | Left astragalus | 4791 | 123 | 103 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30762 | <i>Diplodocus</i> sp. | Right femur | 4791 | 180 | 120/P | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30763 | <i>Diplodocus</i> sp. | Three caudals, right scapula—coracoid, right tibia—fibula—astragalus, ribs | 5973 | 365, 367, 368 | 285/H etc. | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30764 | <i>Diplodocus</i> sp. | Right scapula | 5973 | 367 | 285/H | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30765 | <i>Diplodocus</i> sp. | Two metatarsals | 1617 | 1 | — | Morrison | Sheep Creek, Albany County, Wyoming | Wortman et al. |
| 30766 | <i>Apatosaurus</i> sp. | 11 caudals, right radius—ulna—manus, left femur, right tibia and chevrons | 5973 | 303 | 175/G | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30767 | <i>Diplodocus</i> sp. | Right fibula—astragalus—pes | 5973 | 303 | 175/G | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30768 | <i>Diplodocus</i> sp. | Dorsal centrum | 5973 | 370 | 285/53 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30769 | <i>Camarasaurus</i> sp. | Two caudals | 4791 | 76 | 70/4 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30770 | <i>Apatosaurus</i> sp. | Right metatarsal I | 5973 | 265 | with 210 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30771 | <i>Camarasaurus</i> sp. | Caudal arch and spine | 4791 | 266 | with 210 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30772 | <i>Diplodocus</i> sp. | Three cervicals | 4791 | 76 | 66/1 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 30773 | <i>Diplodocus</i> sp. | Left humerus, left pubis—ischium | 7195 | 438 | 350, 345/A | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33900 | ? <i>Sauropod</i> | Two tiny dorsals | 4791 | 123 | 84 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33901 | ? <i>Allosaurus fragilis</i> | Several vertebrae | 4791 | 123 | 78 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33902 | <i>Apatosaurus</i> sp. | Left pubis | 5314 | 266 | 210/10 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33903 | <i>Allosaurus fragilis</i> | Gastralia | 5314 | 266, 267 | 210 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33904 | <i>Diplodocus</i> sp. | Posterior caudal | 4791 | 123 | 99 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33905 | <i>Sauropod</i> | Incomplete right astragalus | 4791 | 161 | in 39/65F | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33906 | Dinosaur | Chevron | 4791 | 123 | 47/2 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33907 | ? <i>Sauropod</i> | Chevron | 5973 | 293 | 226/10 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33908 | <i>Stegosaurus</i> sp. | Chevrons | 5973 | 323 | 197/31 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33909 | <i>Camarasaurus</i> sp. | Caudal | 5973 | 325 | 232, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|-------------------------|--|----------|-----------------------|----------------|----------|---|-----------|
| 33910 | Dinosaur | Phalanx | 4791 | 123 | 79 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33911 | Dinosaur | Long slender bone | 4791 | 184 | 130 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33912 | <i>Apatosaurus</i> sp. | Centrum | 4791 | 93 | with 45 | Morrison | Uintah County, Utah | Douglass |
| 33913 | Dinosaur | Small caudal | 4791 | 162 | 39/65 | Morrison | Uintah County, Utah | Douglass |
| 33914 | Sauropod | Left radiale | 4256 | 56 | — | Morrison | Uintah County, Utah | Douglass |
| 33915 | Dinosaur | Centrum | 7195 | 427 | 366/A | Morrison | Uintah County, Utah | Douglass |
| 33916 | <i>Apatosaurus</i> sp. | Cervicals 14–15, dorsals 1–10, sacra 1–4, rib | 4791 | 252, 260, 261, 265 | 210/G, H, I, J | Morrison | Uintah County, Utah | Douglass |
| 33917 | <i>Stegosaurus</i> sp. | Dorsal, ribs, scapula | 4791 | 91 | 39/65a | Morrison | Uintah County, Utah | Douglass |
| 33918 | <i>Apatosaurus</i> sp. | Four caudals | 5973 | 328 | 130/P | Morrison | Uintah County, Utah | Douglass |
| 33919 | <i>Stegosaurus</i> sp. | Right femur (east) | — | — | — | Morrison | Uintah County, Utah | Douglass |
| 33920 | <i>Stegosaurus</i> sp. | Lower half right ulna, carpal, metacarpal I, metacarpal | 8011 | — | — | Morrison | Uintah County, Utah | Douglass |
| 33921 | <i>Apatosaurus</i> sp. | Caudal | 8011 | — | — | Morrison | Uintah County, Utah | Douglass |
| 33922 | <i>Stegosaurus</i> sp. | Carpal? | 8011 | — | — | Morrison | Uintah County, Utah | Douglass |
| 33923 | <i>Stegosaurus</i> sp. | Carpal? | 8011 | — | — | Morrison | Uintah County, Utah | Douglass |
| 33924 | <i>Diplodocus</i> sp. | Right fibula | 5973 | 256 | 210/2 | Morrison | Uintah County, Utah | Douglass |
| 33925 | <i>Comarasaurus</i> sp. | Right scapula–coracoid | 5973 | 256 | 210/2 & 6 | Morrison | Uintah County, Utah | Douglass |
| 33926 | <i>Diplodocus</i> sp. | Right scapula | 5973 | 256 | 210/3 | Morrison | Uintah County, Utah | Douglass |
| 33927 | <i>Comarasaurus</i> sp. | Right tibia | 5973 | 319 | 232/2 | Morrison | Uintah County, Utah | Douglass |
| 33928 | <i>Diplodocus</i> sp. | Right fibula | 5973 | 319 | 232/22 | Morrison | Uintah County, Utah | Douglass |
| 33929 | <i>Comarasaurus</i> sp. | Three cervicals, right scapula | 5973 | 364 | 270/1 | Morrison | Uintah County, Utah | Douglass |
| 33930 | <i>Stegosaurus</i> sp. | Two tiny caudals | 4791 | 149 | 102 | Morrison | Uintah County, Utah | Douglass |
| 33931 | <i>Stegosaurus</i> sp. | Sacral rib | 4791 | 169 | 39/76 | Morrison | Uintah County, Utah | Douglass |
| 33932 | <i>Stegosaurus</i> sp. | Metacarpal I | — | — | — | Morrison | Uintah County, Utah | Douglass |
| 33933 | <i>Stegosaurus</i> sp. | Metacarpal | — | — | — | Morrison | Uintah County, Utah | Douglass |
| 33934 | <i>Stegosaurus</i> sp. | Centrum, two arches | 5973 | 366 | 270/A | Morrison | Uintah County, Utah | Douglass |
| 33935 | <i>Stegosaurus</i> sp. | Caudal | 5973 | 347 | 244 | Morrison | Uintah County, Utah | Douglass |
| 33936 | <i>Stegosaurus</i> sp. | Ulna | 7195 | 413 | 39/60Q | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX 1
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|----------------------------|--|----------|----------|-------------------|----------|---|-----------|
| 33937 | <i>Stegosaurus</i> sp. | Four caudals | 4791 | 183 | 130 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33938 | <i>Stegosaurus</i> sp. | Caudal centrum | 4791 | 182 | 120/Ra | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33939 | <i>Stegosaurus</i> sp. | Caudal centrum | 4791 | 181 | 130 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33940 | <i>Stegosaurus</i> sp. | Dermal spine | 4791 | 93 | 45 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33941 | <i>Diplodocus</i> sp. | Left metatarsal III | 4256 | 43 | 39/15 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33942 | <i>Stegosaurus</i> sp. | Dermal spike, three caudals, end of ilium | 4791 | 94 | 39/60Ca | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33943 | Dinosaur | Small right ulna | 4791 | 94 | 39/60? | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33944 | Sauropod | Head of right humerus | 4791 | 76 | 39/83 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33945 | <i>Stegosaurus</i> sp. | Distal half of radius | 7195 | 380? | 39/60(part of 55) | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33946 | <i>Stegosaurus</i> sp. | Right humerus | 5973 | 366 | 270 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33947 | <i>Diplodocus</i> sp. | Right pubis | 5973 | 310 | 228/7 in 202J | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33948 | <i>Camarasaurus</i> sp. | Left ulna | 5973 | 319 | 232/23 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33949 | <i>Camarasaurus</i> sp. | Right radius | 5973 | 319 | 232/17 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33950 | <i>Diplodocus</i> sp. | Left fibula | 5973 | 365 | 285/10 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33951 | <i>Diplodocus</i> sp. | Right tibia | 5973 | 310 | 228/6 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33952 | <i>Apatosaurus</i> sp. | Right fibula | 4791 | 299 | 175/2 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33953 | <i>Diplodocus</i> sp. | Right tibia | 5973 | 367 | 285/38 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33954 | <i>Camarasaurus</i> sp. | Left ulna | 4791 | 164 | 39/65H | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33955 | <i>Camarasaurus</i> sp. | Dorsal | 4791 | 151 | 101 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33956 | <i>Camarasaurus</i> sp. | Lower half right tibia | 4791 | 187 | 130/D | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33957 | <i>Allosaurus fragilis</i> | Two caudals | 5973 | 325 | 232 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33958 | <i>Camarasaurus</i> sp. | Two claws | 5973 | 325 | 232, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33959 | <i>Diplodocus</i> sp. | Left radius | 5973 | 347 | 238/1 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33960 | Sauropod | Dorsal centrum | 4791 | 161 | 39/65, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33961 | <i>Diplodocus</i> sp. | Left scapula | 4791 | 93 | 45/18? | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33962 | <i>Diplodocus</i> sp. | Right ilium and pubis | 4791 | 198 | 146/B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33963 | <i>Camarasaurus</i> sp. | Right humerus | 5973 | 313 | 210/O | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX 1
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|----------------------------|---|----------|----------|------------------------|----------|---|-------------------------|
| 33964 | <i>Apatosaurus</i> sp. | Left tibia and fibula | 5973 | 313 | 210/O | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33965 | <i>Allosaurus fragilis</i> | Anterior caudals | 4791 | 168 | 120/C | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33966 | <i>Stegosaurus</i> sp. | Distal caudal | 4791 | 198 | 146 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33967 | <i>Diplodocus</i> sp. | Left tibia | 4791 | 237 | 160/K | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33968 | <i>Apatosaurus</i> sp. | Two dorsals | 4791 | 184 | 130/B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33969 | Sauropod | Caudal | 7195 | 382 | 312/B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33970 | Sauropod | Incomplete humerus, proximal half radius | 4791 | 76 | 39/44? | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33971 | <i>Camarasaurus</i> sp. | Left humerus | 4791 | 175, 176 | 120/M, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33972 | <i>Camarasaurus</i> sp. | Right forelimb and foot | 4791 | 177, 175 | 120, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33973 | <i>Camarasaurus</i> sp. | Right femur | 5973 | 311 | 210/20 in 202/G | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33974 | ?Ornithopod | Presacral vertebra | 4791 | 149 | 102 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33975 | Ankylosaurid | Cast of scute | 2346? | — | — | Wealden | Brook, Isle of Wight, England | — |
| 33976 | ? <i>Apatosaurus</i> sp. | Left femur | 5973 | 319 | 232/12 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33977 | <i>Diplodocus</i> sp. | Caudals | 4791 | 215 | 148 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33978 | <i>Barosaurus lentus</i> | Left ilium | 4791 | 213 | 155/C | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33979 | <i>Camarasaurus</i> sp. | Right humerus (two ends) | 4791 | 145 | 102, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33980 | <i>Apatosaurus</i> sp. | Left pubis | 5973 | 319 | 130/11 (not 232/11) | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33981 | <i>Camarasaurus</i> sp. | Right ilium | 5973 | 313 | 130/10 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33982 | Sauropod | Claw I-2 of pes | 7195 | 444 | 350/B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33983 | <i>Stegosaurus</i> sp. | Two caudals | 4791 | 164 | 39/78 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33984 | <i>Diplodocus</i> sp. | Cervicals | 4791 | 149 | 102, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33985 | <i>Diplodocus</i> sp. | Left fibula, left metatarsals III, IV, V | 1617 | 31 | D38 etc. | Morrison | Uintah County, Utah | Peterson and Gilmore |
| 33986 | <i>Camarasaurus</i> sp. | Caudal | 4256 | 43 | 39, part | Morrison | Quarry D(3), Sheep Creek, Albany County, Wyoming | Douglass |
| 33987 | <i>Diplodocus</i> sp. | Left ischium | 5973 | 362 | 270/14 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33988 | <i>Camarasaurus</i> sp. | Head of right humerus | 5973 | 311 | 210/16 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33989 | <i>Apatosaurus</i> sp. | Left metatarsal III | 4791 | 230 | 173 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33990 | <i>Apatosaurus</i> sp. | Right metatarsal IV | 5973 | 347 | 243 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|----------------------------------|---|----------|----------|------------------------------|----------|---|----------------------|
| 33991 | <i>Diplodocus</i> sp. | Left femur, left tibia (formerly part of 3378) | 4791 | 242, 232 | 160/G, 160/H | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33992 | <i>Stegosaurus</i> sp. | Incomplete left ilium | 4791 | 138 | 102/6 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33994 | <i>Apatosaurus</i> sp. | Head of gigantic femur | 1617 | 47 | — | Morrison | Quarry B, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 33995 | <i>Haplocanthosaurus priscus</i> | Left scapula—coracoid | 21934 | — | — | Morrison | ?Marsh-Felch Quarry I, Garden Park, Colorado | ?Utterback |
| 33996 | <i>Apatosaurus</i> sp. | Right radius—ulna | 7195 | 438 | 350/5 in 345/A | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 33997 | <i>Apatosaurus</i> sp. | Left femur (formerly part of 3378) | 4791 | 198 | 146/B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 36019 | <i>Comarasaurus</i> sp. | Scapula, right coracoid, humeri, left ulna—radius | 2395 | 25 to 28 | B202-3, B207-9, B211, B214-5 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36020 | <i>Comarasaurus</i> sp. | Right tibia—fibula | 2395 | 28, 29 | B215, B216 | Morrison | River, Johnson County, Wyoming | Utterback |
| 36021 | <i>Comarasaurus</i> sp. | Femora | 2395 | 23, 24 | B205, B210 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36022 | <i>Comarasaurus</i> sp. | Right fibula | 2395 | 12 | B120 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36023 | <i>Comarasaurus</i> sp. | Right tibia | 2395 | — | — | Morrison | River, Johnson County, Wyoming | Utterback |
| 36024 | <i>Comarasaurus</i> sp. | Right pubis—ischium | 2395 | 22 | B201 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36025 | <i>Comarasaurus</i> sp. | Left coracoid | 2395 | 5 | B46 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36026 | <i>Apatosaurus</i> sp. | Right humerus | 2395 | 28 | B221 | Morrison | River, Johnson County, Wyoming | Utterback |
| 36027 | <i>Comarasaurus</i> sp. | Right coracoid | 2395 | 26 | B206 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36028 | <i>Comarasaurus</i> sp. | Right scapula (distal end) | 2395 | — | — | Morrison | River, Johnson County, Wyoming | Utterback |
| 36029 | <i>Comarasaurus</i> sp. | Small right scapula | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36030 | <i>Comarasaurus</i> sp. | Left scapula | 2395 | — | B220 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36031 | <i>Comarasaurus</i> sp. | 16 anterior caudals | 2395 | 4, 5, 7 | B48 to 58, B107 to 113 | Morrison | River, Johnson County, Wyoming | Utterback |
| 36032 | <i>Comarasaurus</i> sp. | First caudal | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36033 | <i>Apatosaurus</i> sp. | Caudal | 2395 | 4 | B47 | Morrison | River, Johnson County, Wyoming | Utterback |
| 36034 | ? <i>Haplocanthosaurus</i> sp. | Caudal | 2395 | 18 | B179 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36035 | <i>Apatosaurus</i> sp. | Two caudals | 2395 | 29 | B226 | Morrison | River, Johnson County, Wyoming | Utterback |
| 36036 | <i>Comarasaurus</i> sp. | Posterior caudal | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36037 | <i>Allosaurus</i> sp. | Caudal | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36038 | <i>Apatosaurus</i> sp. | Right metatarsal II | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|---------------------------|--|----------|------------------------------|--|----------|---|-----------|
| 36039 | <i>Camarasaurus</i> sp. | Four cervicals | 2395 | 28, 29 | B-213, 217-219 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36040 | <i>Camarasaurus</i> sp. | Huge dorsal | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36041 | <i>Diplodocus</i> sp. | Anterior dorsal spine | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36042 | <i>Camarasaurus</i> sp. | Partial dorsal centrum | 2395 | — | — | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36043 | <i>Camarasaurus</i> sp. | Left scapula | 2395 | 8 | B73 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36663 | <i>Camarasaurus</i> sp. | Scapulae, coracoids, humerus, ilium, pubes, ischia, femur, tibia, fibula, astragalus | 2131 | 12, 14-16, 18-19, 21, 24, 25 | N-1, 11 to 14, 29, 34, 37, 38, N-42, 59, 173 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36664 | <i>Camarasaurus</i> sp. | Scapulae, coracoids, humerus, radius, femur, tibiae, fibula | 2131 | 14, 15, 17, 20, 22, 34 | N-2, 7, 10, 15 to 17, 19, N-31, 32, 152 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36665 | <i>Apatosaurus</i> sp. | Right radius-ulna | 2312 | 2 | N-323 and 326 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36666 | <i>Camarasaurus</i> sp. | Right pubis | 2131 | 38, 40 | N-175 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36667 | <i>Apatosaurus</i> sp. | Right pes | 2131 | 23, 24, 28 | N-70 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36668 | <i>Camarasaurus</i> sp. | Left tibia, metatarsals I and IV | 2131 | 16, 18 | N-22, 23, 24 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36669 | <i>Camarasaurus</i> sp. | (?)fibula | 2131 | 23 | N-56 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36670 | <i>Camarasaurus</i> sp. | Left dentary | 2395 | — | B-122 | Morrison | Quarry B, Red Fork of Powder River, Johnson County, Wyoming | Utterback |
| 36671 | <i>Camarasaurus</i> sp. | Four caudals | 2312 | 1, 4 | N-304 (sub 1, 2, 3, 10) | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36672 | <i>Apatosaurus</i> sp. | Left manus | 2312 | 1, 4 | N-304 (sub 4-9, 11-12) | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36674 | <i>Apatosaurus</i> sp. | Four left metatarsals | 2131 | 36, 37 | N-170, 177, N-182-186 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36675 | <i>Camarasaurus</i> sp. | Astragalus, three metapodials, phalanx | 2312 | 4, 5 | N-305, 306, 319, 321, 323 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36676 | <i>Apatosaurus</i> sp. | Two metacarpals | 2312 | 3, 5 | N-302, 309 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36677 | <i>Camarasaurus</i> sp. | Phalanx | 2131 | 16 | N-27 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36678 | ? <i>Camarasaurus</i> sp. | Carpal | 2131 | 39 | N-198 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36679 | ? <i>Camarasaurus</i> sp. | Two phalanges | 2131 | 37 | N-194(2) | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36680 | <i>Camarasaurus</i> sp. | Claw | 2131 | 24 | N-75 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36681 | ? | Odd bone | 2131 | 37 | N-195 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36682 | <i>Apatosaurus</i> sp. | Two metacarpals (probably really N-85) | 2131 | — | marked N-72(2) | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36683 | <i>Apatosaurus</i> sp. | Metatarsal I | 2131 | — | N-? | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36684 | <i>Camarasaurus</i> sp. | Seven phalanges | 2131 | — | N-? | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| | | | 2312 | | | | | |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|-------------------------|--|----------|--------------------|---|----------|---|----------------------|
| 36685 | <i>Camarasaurus</i> sp. | Left phalanges V, 1 and 2 of manus | 2131 | 23 | N-64 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36686 | <i>Camarasaurus</i> sp. | Three metacarpals? | 2312 | 2, 4 | N-300, 312, 313 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36687 | <i>Apatosaurus</i> sp. | Left scapula—coracoid | 4791 | — | 55 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 36688 | ? | Foot bone | 2131 | 23-24 | N-53 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36689 | <i>Camarasaurus</i> sp. | Six vertebrae | 2312 | 2, 5 | N-301, 307, 308, 316, 324, 325 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36690 | <i>Apatosaurus</i> sp. | Caudal | 2312 | 5 | N-303 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36691 | <i>Apatosaurus</i> sp. | Anterior caudal | 2131 | 29 | N-104 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36692 | <i>Apatosaurus</i> sp. | 11 caudals | 2131 | 23, 32, 35, 36, 37 | N-37, 57, 67, 88, 109, 123, 151, 160, 162, x, x | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36693 | <i>Camarasaurus</i> sp. | Four caudals | 2131 | — | N-72(4) | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36694 | <i>Camarasaurus</i> sp. | Caudal | 2131 | 37 | N-168 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36695 | <i>Camarasaurus</i> sp. | Caudal | 2131 | 37 | N-185 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36696 | <i>Stegosaurus</i> sp. | Femora, right scapula | 2131 | 32, 34, 35 | N-86, 87, 88 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36697 | <i>Stegosaurus</i> sp. | Two vertebrae | 2131 | 37, 39 | N-176 to 180 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36698 | <i>Stegosaurus</i> sp. | Vertebra | 2312 | 4 | N-322 | Morrison | Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36699 | <i>Apatosaurus</i> sp. | Left metacarpals II, III, IV (juvenile) | 7195 | — | with 160 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 36700 | <i>Stegosaurus</i> sp. | Right radius | 2131 | 15 | O-1 & 2 | Morrison | Quarry O, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 36701 | <i>Camarasaurus</i> sp. | Cervical | 4791 | 103 | 39/65Ca | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 37001 | <i>Camarasaurus</i> sp. | Two neural arches of anterior caudals or sacrals | 7195 | 410 | 302/K | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 37002 | Sauropod | Rib | 7195 | 384 | 338 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 37003 | <i>Camarasaurus</i> sp. | Metacarpal | 5973 | 325 | 232, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 37004 | <i>Allosaurus</i> sp. | Half a metatarsal | 5973 | 362 | 270/26 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 37005 | <i>Stegosaurus</i> sp. | Caudal and rib | 7195 | 401 | 39/60 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 37006 | ? <i>Diplodocus</i> sp. | Half a cervical | 5973 | 266? | 2203 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 37007 | <i>Apatosaurus</i> sp. | Right scapula | 1617 | 87 | C-53 | Morrison | Quarry C, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 37008 | Sauropod | Cervical and rib | 7195 | 401 | 302, part | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|---------------------------------|---|----------|----------|-------------|----------|--|----------------------|
| 37009 | Sauropod | Rib | 7195 | 401 | 328 & 329 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 37010 | <i>Apatosaurus</i> sp. | Left astragalus and claw | 1885 | 1 | — | Morrison | Quarry E, Sheep Creek, Albany County, Wyoming | Peterson and Gilmore |
| 37012 | Sauropod | Sacral centrum | — | — | 130/3? | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 37013 | <i>Diplodocus</i> sp. | Casts of three chevrons of AMNH 222 | — | — | — | Morrison | American Museum Quarry, Como Bluff, Wyoming | — |
| 38320 | <i>Camarasaurus</i> sp. | Left humerus | 4256 | 43 | 39/13 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38321 | ? <i>Edmontosaurus</i> sp. | Right dentary (juvenile) | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38322 | <i>Ornithomimus</i> sp. | Four claws of manus | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38323 | Theropod | Two claws | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38324 | <i>Edmontosaurus</i> sp. | Tarsal, three phalanges, two unguals | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38325 | <i>Edmontosaurus</i> sp. | Tooth | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38326 | Small theropod | Right femur | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38327 | <i>Thescelosaurus neglectus</i> | Three dorsals, 10 phalanges, four claws | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38328 | <i>Edmontosaurus</i> sp. | Metatarsal | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38329 | <i>Edmontosaurus</i> sp. | Caudal | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38330 | Dinosaur | Metatarsal | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38333 | <i>Edmontosaurus</i> sp. | Pubis | 11767 | — | 10/1938 | Lance | Sheep Mountain, Carter County, Montana | Kay |
| 38334 | <i>Camarasaurus</i> sp. | Distal end right humerus | 4256 | 56 | (?)39/ | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38335 | <i>Diplodocus</i> sp. | Right scapula | 5973 | 367 | 285/H | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38336 | Sauropod | Left scapula (incomplete) | 4791 | 198 | 146 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38337 | <i>Camptosaurus</i> sp. | Tibia and fibula (incomplete) | 4791 | 181 | 130 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38338 | <i>Apatosaurus</i> sp. | Metacarpal I | 4791 | 181 | 130 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38339 | ? <i>Diplodocus</i> sp. | Rib | 5973 | 302 | 202/F | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38340 | <i>Stegosaurus</i> sp. | Left femur—tibia—fibula—astragalus | 7195 | 390 | 320/A, B, C | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38341 | <i>Allosaurus</i> sp. | Caudal and claw | 4791 | 181 | 130 | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38342 | <i>Camarasaurus</i> sp. | Caudal | 4791 | 149 | 102, part | Morrison | Carnegie Museum Quarry, DNM, Utah County, Utah | Douglass |
| 38343 | Hadrosaurid | Ungual | — | — | — | Lance | Hell Creek, Montana | Silberling |
| 38344 | Hadrosaurid | Tooth | — | — | — | Lance | Hell Creek, Montana | Silberling |

APPENDIX I
Continued

| Cat. no. | Genus and species | Material | Acc. no. | Box nos. | Field nos. | Horizon | Locality | Collector |
|----------|--------------------------|---|----------|----------|------------|------------------|--|-----------|
| 38345 | Ceratopsid | Tooth | — | — | — | Lance | Hell Creek, Montana | Siberling |
| 38346 | Sauropod (small) | Left metatarsal IV, left phalanx I-1, fragment | 5973 | 365 | with 285/C | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 38347 | ? <i>Apatosaurus</i> sp. | Left phalanx II-1 of pes | 2131 | 15 | — | Morrison | Near Quarry N, Freezeout Hills, Carbon County, Wyoming | Gilmore |
| 38348 | Sauropod | Small metacarpal? | — | — | — | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 38349 | <i>Allosaurus</i> sp. | Several incomplete metatarsals | — | — | 197? | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 38350 | Sauropod | Claw I-2 of manus | 4791 | 145 | 45/A? | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 38351 | Sauropod | Metacarpal and caudal | 7195 | 390 | 320/B | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 38352 | <i>Apatosaurus</i> sp. | Metacarpal | 5973 | 325 | 232 (part) | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 38353 | Hadrosaurid | Large metatarsal, three phalanges, limb segment | 2394 | 1, 5 | — | Upper Cretaceous | Montana | Douglass |
| 38354 | ? <i>Stegosaurus</i> sp. | Right coracoid | 5973 | 293 | 226/10 | Morrison | Carnegie Museum Quarry, DNM, Uintah County, Utah | Douglass |
| 38355 | <i>Edmontosaurus</i> sp. | Right tibia | — | — | — | Lance | Billy Creek, Garfield County, Montana | McCready |
| 38356 | Hadrosaurid | Large section of tail | 2643 | 4 | — | Judith River | Mud Creek, Fergus County, Montana | Utterback |

APPENDIX 2

Accessions to the Carnegie Museum of Natural History Containing Dinosaurian Fossils

| Acc. no. | Description | Date |
|----------|---|-----------------|
| 414 | Bavarian Museum in Munich original from Solnhofen, Bavaria cast of the skeleton of the type of <i>Compsognathus longipes</i> | — |
| 954 | W. J. Holland, collector Carbon County, Wyoming fragment of caudal and rib | 1899 |
| 1004 | W. H. Reed, collector, obtained by W. J. Holland Carbon County, Wyoming upper part of very large sauropod femur | 18 May 1899 |
| 1246 | J. L. Wortman, W. H. Reed, A. Coggeshall, collectors Carbon and Albany counties, Wyoming, Quarries 1, 2, 3(D), 4, 5 large part of <i>Diplodocus</i> skeleton, CM 84, and partial skeletons of <i>Apatosaurus</i> and <i>Stegosaurus</i> | 27 Oct. 1899 |
| 1617 | O. A. Peterson and C. W. Gilmore, collectors Sheep Creek, Albany County, Wyoming, Quarries A, B, C, D, E, F, G 92 boxes containing a large part of second <i>Diplodocus</i> skeleton, CM 94, and partial skeletons of <i>Camarasaurus</i> , <i>Apatosaurus</i> , etc. | 3 Nov. 1900 |
| 1629 | J. B. Hatcher and party, collectors Lance Creek, etc., Converse (now Niobrara) County, Wyoming disarticulated hadrosaur and ceratopsid bones | 6 Nov. 1900 |
| 1858 | Exchange from E. Fraas Triassic of Germany various vertebrate fossils including a theropod tooth | 1901 |
| 1885 | C. W. Gilmore, collector Sheep Creek, Albany County, Wyoming, Quarries C, E, J 50 boxes containing two skeletons of <i>Apatosaurus</i> from quarry E, one of them CM 563, and other partial skeletons, mainly sauropod | 1901 |
| 1934 | W. H. Utterback, collector Classic Marsh Quarry No. 1, Garden Park, north of Cañon City, Fremont County, Colorado 26 cases containing two partial skeletons of <i>Haplocanthosaurus</i> and other scattered bones | 1901 |
| 2129 | O. A. Peterson, collector Snyder Creek, Converse (now Niobrara) County, Wyoming | 3 Nov. 1902 |

APPENDIX 2

Continued

| Acc. no. | Description | Date |
|----------|--|-----------------|
| | 12 boxes containing partial skeletons of <i>Triceratops</i> and <i>Tyrannosaurus</i> | |
| 2131 | C. W. Gilmore, collector Freezeout Hills, Carbon County (Quarries L, M, N, O) and Sheep Creek, Albany County (Quarry K), Wyoming 40 boxes containing several partial skeletons and much scattered material of many Morrison genera | 3 Nov. 1902 |
| 2132 | E. Douglass, collector near Havre, Montana various scattered dinosaurian bones | Nov. 1902 |
| 2145 | W. H. Utterback, collector Red Fork of the Powder River, Quarry A, Johnson County, Wyoming 22 boxes of a <i>Diplodocus</i> skeleton, CM 662 | 15 Nov. 1902 |
| 2312 | C. W. Gilmore, collector Freezeout Hills, Quarries N, O, Carbon County, Wyoming 7 boxes with the conclusion of the previous season's collections from Quarry N (and a few bones from O) | 26 June 1903 |
| 2345 | J. B. Hatcher, collector Judith River of Montana reptilian remains | 3 Sept. 1903 |
| 2346 | Exchange from Pal. Inst. of Vienna Univ. originals from near Vienna, Austria collection of casts mostly of <i>Struthiosaurus</i> | 8 Sept. 1903 |
| 2394 | J. B. Hatcher, E. Douglass, W. H. Utterback, collectors 32 boxes containing remains of various Cretaceous dinosaurs, largely hadrosaurid | 18 Nov. 1903 |
| 2395 | W. H. Utterback, collector Red Fork of the Powder River, Quarries A and B, Johnson County, Wyoming 29 boxes containing remainder of <i>Diplodocus</i> skeleton CM 662 | 18 Nov. 1903 |
| 2417 | A. C. Silberling, collector Morrison and Judith River beds of Montana 3 boxes containing Cretaceous and Jurassic reptilian fossils | 5 Jan. 1904 |
| — | American Museum of Natural History casts of Jurassic dinosaur bones from Wyoming casts of 3 chevrons of <i>Diplodocus</i> (AM 222) and manus of "Diplodocus" (<i>Camarasaurus</i>) (AM 965) | 1904 |
| 2643 | W. H. Utterback, collector Judith River and Hell Creek, Garfield County, Montana | 10 Oct. 1904 |

APPENDIX 2

Continued

| Acc. no. | Description | Date |
|----------|---|----------------|
| | 10 boxes containing <i>Triceratops</i> skull and other remains | |
| 3083 | W. H. Utterback, collector Lance Creek, Converse (now Niobrara) County, Wyoming | 1906 |
| | 2 boxes with partial <i>Triceratops</i> skeleton and other ceratopsian material | |
| 3085 | W. H. Utterback, collector Elk Mountain, Johnson County, Wyoming | 1906 |
| | limbs of two <i>Diplodocus</i> and a partial skeleton of <i>Dryosaurus</i> | |
| 3343 | W. H. Utterback, collector Lance Creek, Converse (now Niobrara) County, Wyoming | 1907 |
| | remainder of <i>Triceratops</i> partial skeleton | |
| 3723 | Exchange from Yale University Peabody Museum originals from YPM Quarry 1, Como Bluff, Wyoming | 1908 |
| | 4 boxes of <i>casts</i> of limb and girdle bones and sacrum of cotypes of <i>Camarasaurus grandis</i> | |
| 4256 | E. Douglass and party, collectors (what is now) Dinosaur National Monument north of Jensen, Uintah County, Utah | 1910 |
| | First shipment, 70 boxes (nos. 1-70, 73, 75) of vast dinosaur collection from DNM including <i>Apatosaurus</i> skeleton CM 3018, and <i>Dryosaurus</i> skeleton CM 3452 | |
| 4791 | E. Douglass and party, collectors (what is now) Dinosaur National Monument north of Jensen, Uintah County, Utah | 1913 |
| | Second shipment, 177 boxes (nos. 71, 76-250) from DNM, containing <i>Diplodocus</i> CM 11161 and <i>Apatosaurus</i> CM 11162 skulls and many partial skeletons | |
| 5246 | McMillen, collector 50 mi south of Grand Junction, Colorado | 3 Nov. 1914 |
| | sauropod caudal | |
| 5314 | E. Douglass and party, collectors (what is now) Dinosaur National Monument north of Jensen, Uintah County, Utah | 1914 |
| | Third shipment, 3 boxes (nos. 262, 266, 267) containing <i>Diplodocus</i> skull and <i>Camarasaurus</i> jaws | |
| 5973 | E. Douglass and party, collectors mostly from Dinosaur National Monument, Uintah County, Utah | 7 Dec. 1917 |
| | Fourth shipment, 119 boxes (nos. 251-261, 263-265, 268-341, 343-373) from DNM containing <i>Allosaurus</i> skeleton CM | |

APPENDIX 2

Continued

| Acc. no. | Description | Date |
|----------|--|-----------------|
| | 11844, <i>Diplodocus</i> skeleton (Denver Museum of Natural History), <i>Camarasaurus</i> skeleton CM 11393 and many partial skeletons | |
| 6169 | Donated by the American Museum of Natural History original from the Hell Creek beds of Big Dry Creek, Montana | 4 Mar. 1919 |
| | <i>cast</i> of skull and mandible of <i>Tyrannosaurus</i> | |
| 7195 | E. Douglass and party, collectors Dinosaur National Monument, Uintah County, Utah | 1923 |
| | Fifth and final shipment, 70 boxes (373A-374, 377, 379-446) from DNM including two <i>Camarasaurus</i> skeletons (CM 11338, USNM 13786), <i>Stegosaurus</i> skeleton (CM 11341), <i>Camptosaurus</i> skeleton (CM 11337), and much more material | |
| 7620 | Exchange with Geological Survey of Canada Red Deer River of Alberta, Canada | 14 May 1925 |
| | skulls of <i>Corythosaurus</i> and <i>Centrosaurus</i> | |
| 7877 | F. H. Hammon, collector Panhandle of Texas | 1926 |
| | sauropod caudal | |
| 7974 | Exchange with American Museum of Natural History Shabarakh Usu (now Bain Dzak), Mongolia | 24 Jan. 1927 |
| | <i>casts</i> of <i>Protoceratops</i> eggs | |
| 8011 | Return from U.S. National Museum Dinosaur National Monument, Uintah County, Utah | 14 Mar. 1927 |
| | return of part of <i>Stegosaurus</i> CM 11341 and other material contained in blocks of sauropod neck sent to USNM | |
| 8411 | J. L. Kay, collector Harding County, South Dakota | 8 Oct. 1928 |
| | rear two-thirds of skeleton of <i>Edmontosaurus</i> | |
| 9834 | Purchased from Paul Mauersberger Upper Trias of Germany | 1933 |
| | <i>cast</i> of <i>Plateosaurus</i> pes | |
| 11348 | J. L. Kay, collector Oldman and Lance formations at Sheep Mountain, Carter County, Montana | 1937 |
| | various Cretaceous dinosaur bones including a good hadrosaur | |
| 11767 | J. L. Kay, collector Lance Formation at Sheep Mountain, Carter County, Montana | 1938 |
| | scattered remains of numerous dinosaur genera | |

APPENDIX 2

Continued

| Acc. no. | Description | Date |
|----------|--|-----------------|
| 12863 | Acquisition from American Museum of Natural History Hell Creek, Montana type skeleton of <i>Tyrannosaurus rex</i> | 31 Dec. 1941 |
| 13498 | Acquisition from American Museum of Natural History Shabarakh Usu (now Bain Dzak), Mongolia almost complete skull and skeleton of <i>Protoceratops</i> | Feb. 1945 |
| — | Exchange with Royal Ontario Museum Red Deer River, Alberta, Canada skeleton (without skull) of <i>Corythosaurus</i> | 1940 |
| 17486 | Acquired from Jess Lombard Jura 3, Lily Park, Moffat County, Colorado somewhat fragmentary skeleton of <i>Dryosaurus</i> | 1955 |

APPENDIX 2

Continued

| Acc. no. | Description | Date |
|----------|--|----------------|
| 20674 | Donated by James Jensen Moffat County, Colorado cast of gigantic <i>Torvosaurus</i> claw | 7 Nov. 1963 |
| 26805 | Acquired from Royal Ontario Museum Edmonton Formation, Red Deer River, Alberta, Canada skull and skeleton of <i>Edmontosaurus regalis</i> | Dec. 1973 |
| — | A. McCrady and party, collectors Hell Creek and Billy Creek, Garfield County, Montana various bones of hadrosaurs and <i>Triceratops</i> | June 1978 |